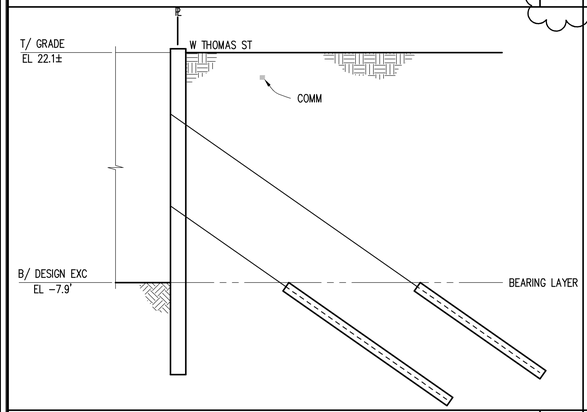

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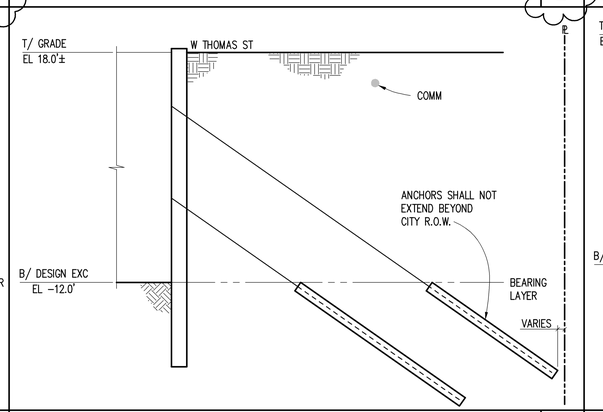

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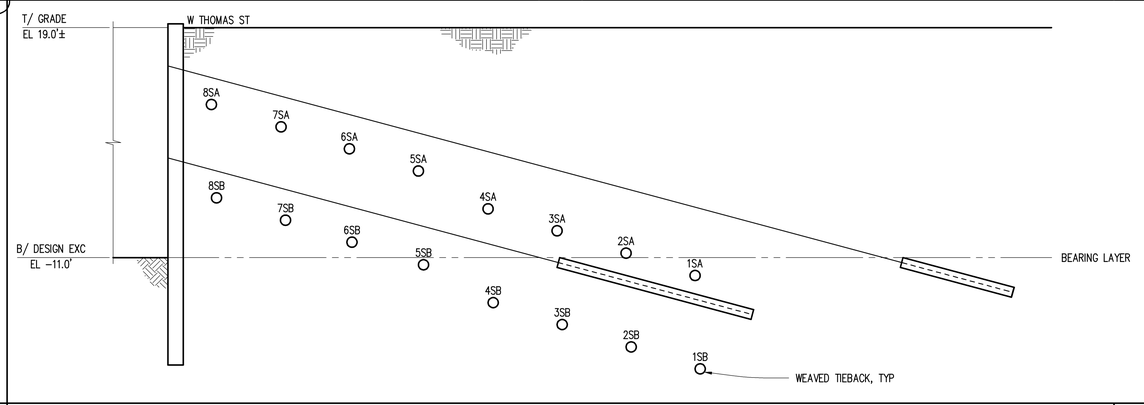

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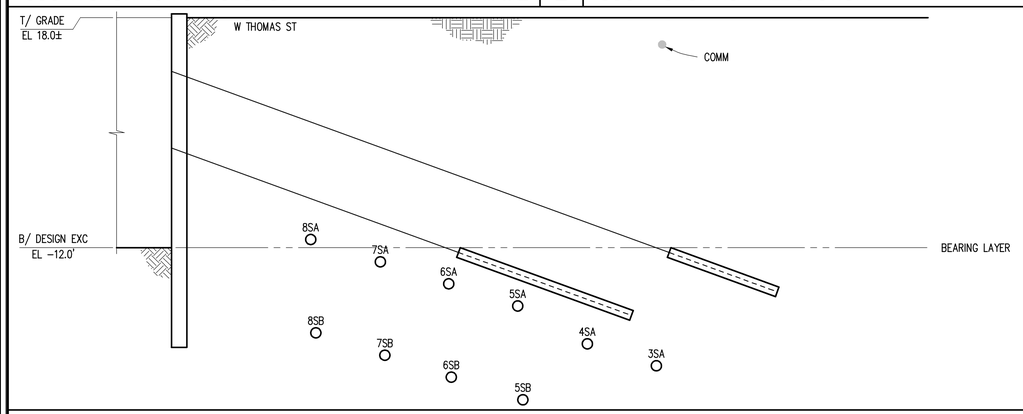

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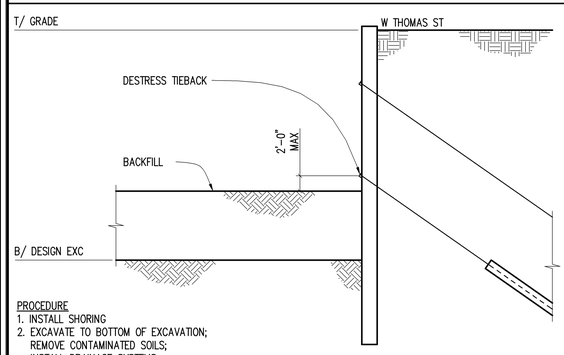
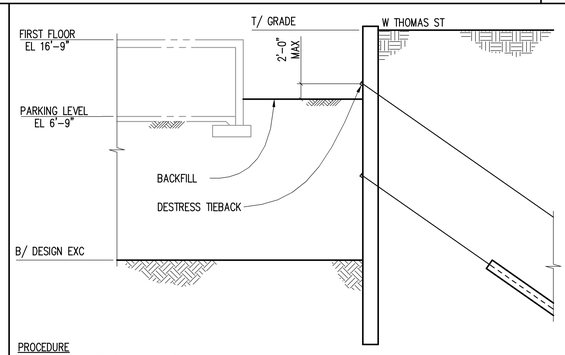


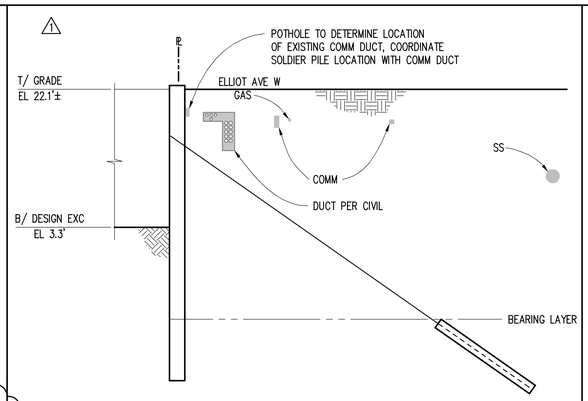
PROCEDURE
1. INSTALL SHORING
2. EXCAVATE TO BOTTOM OF EXCAVATION;
   REMOVE CONTAMINATED SOILS;
   INSTALL DRAINAGE SYSTEMS;
   INSTALL STONE COLUMNS
3. BACKFILL TO AT LEAST 2' BELOW TIEBACK
4. DESTRESS TIEBACK

TIEBACK DESTRESSING FOR PILES AT BACKFILL, PHASE 1 — N

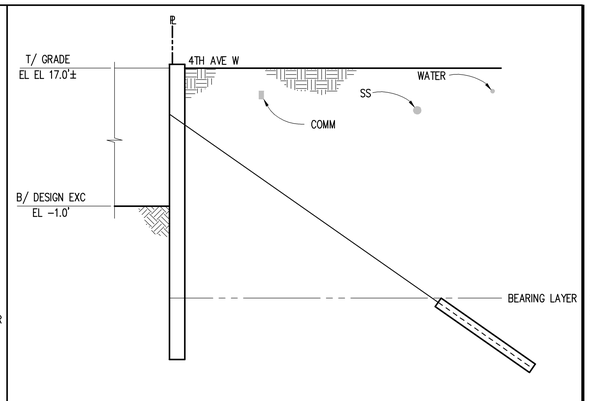


PROCEDURE
5. BACKFILL TO BOTTOM OF FOUNDATIONS
6. CONSTRUCT FOUNDATION WALLS, FIRST FLOOR SLABS
7. BACKFILL TO AT LEAST 2' BELOW TIEBACK
8. DESTRESS TIEBACK

TIEBACK DESTRESSING FOR PILES AT BACKFILL, PHASE 2 — P



EAST SHORING WALL SECTION — NO SCALE — C



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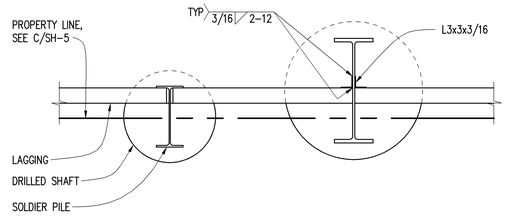
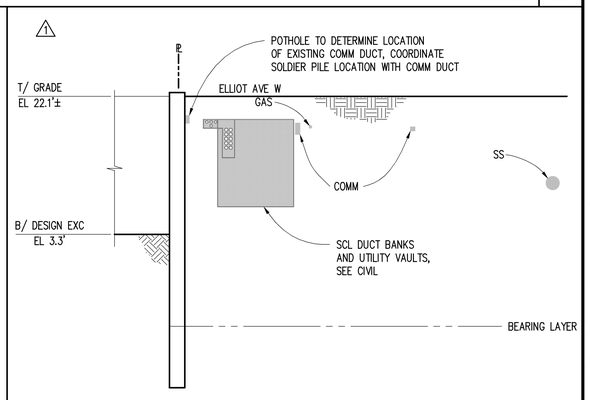


DETAIL — L



EAST SHORING WALL SECTION — NO SCALE — M

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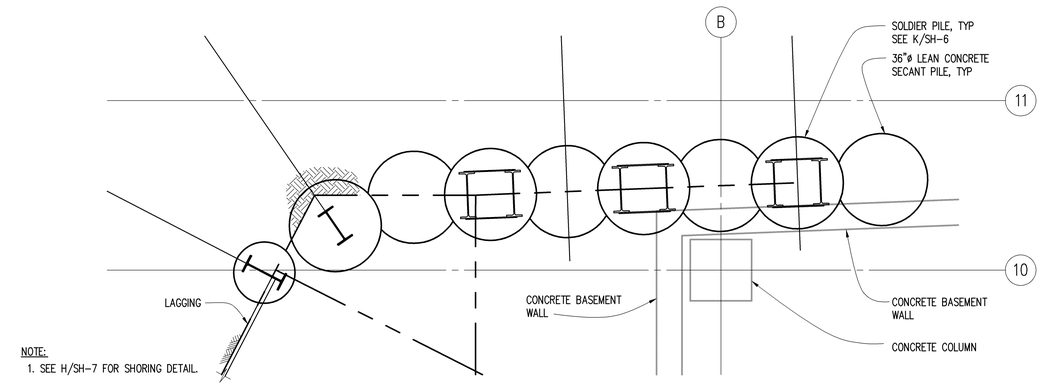
1	1/23/06	REVISED BID SET
.	12/21/05	BID SET
.	10/21/05	SHORING PERMIT RESUBMITTAL
.	10/21/05	SHORING PERMIT RESUBMITTAL

DATE : 3/20/06
SCALE : .
DRAWN BY : . .
JOB NO. : . .
DATE PLOTTED : .
DWG NAME : .

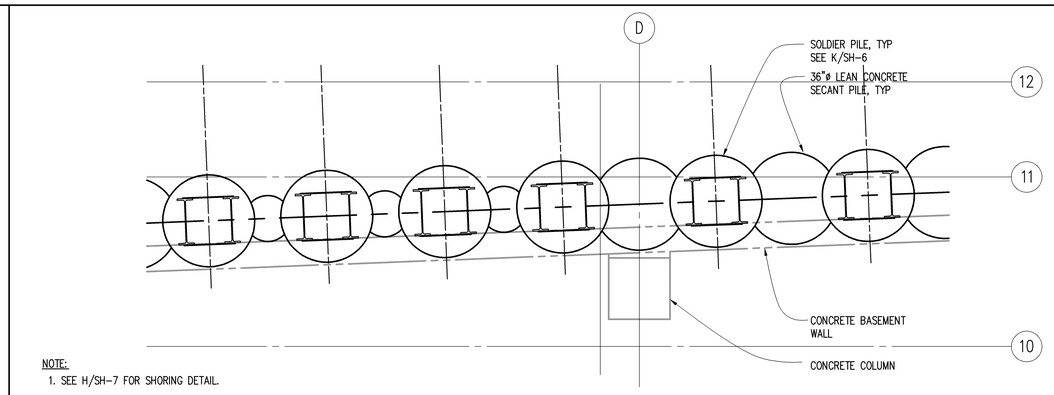
SHORING WALL SECTIONS AND DETAILS

333 Elliott Avenue
Seattle, Washington

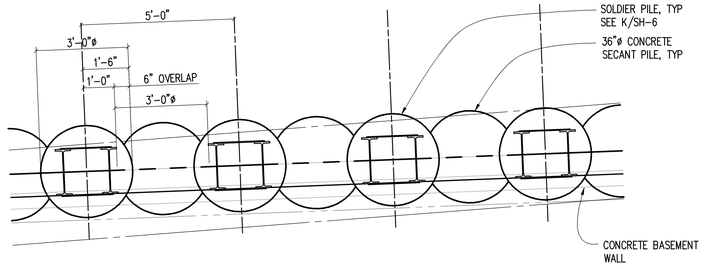
SH-5



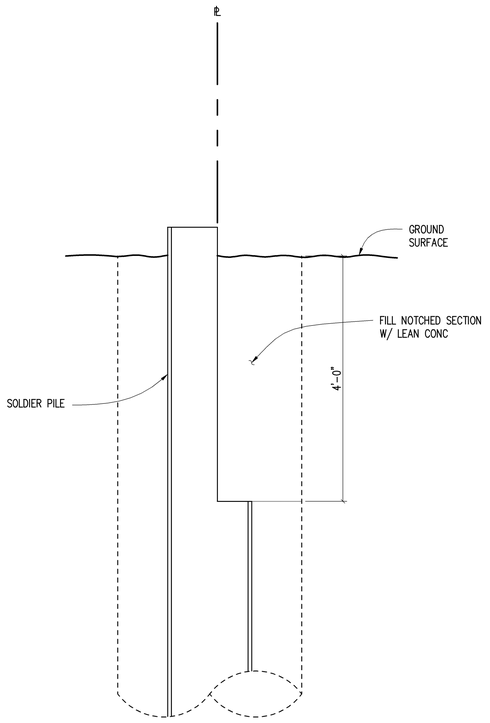
DETAIL AT SHORING AT B-10 1/2"=1'-0" B



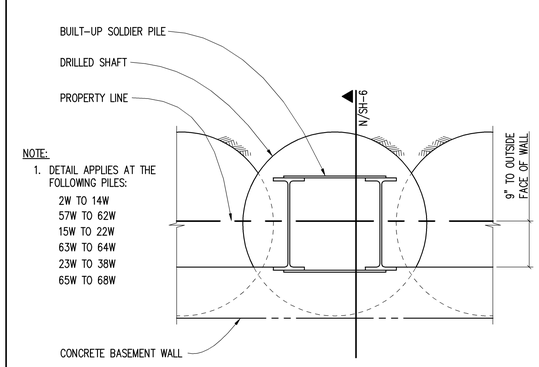
DETAIL AT SHORING AT D-10 1/2"=1'-0" D



DETAIL AT TYPICAL SOLDIER PILES & SECANT PILES 1/2"=1'-0" F

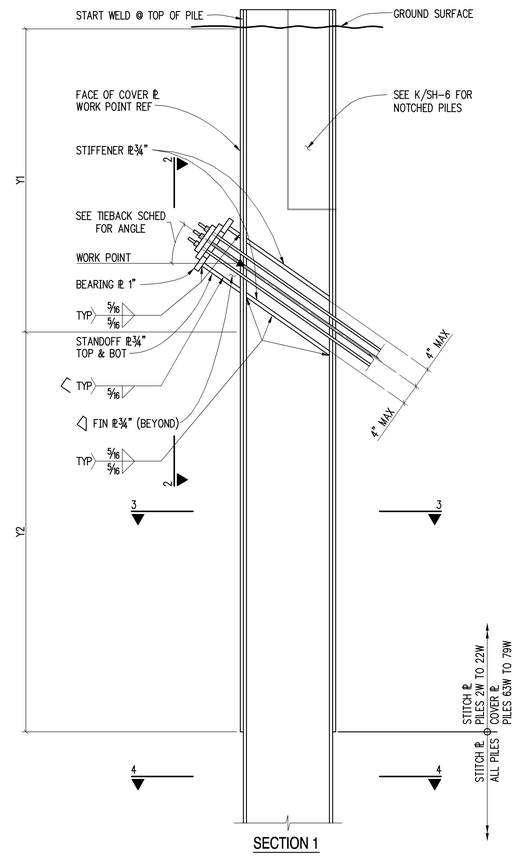


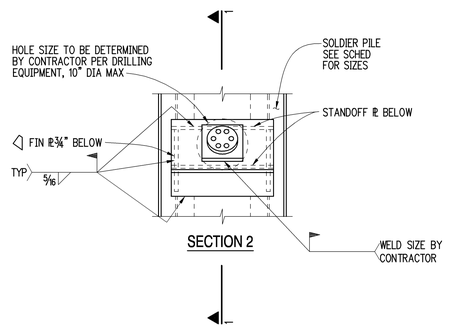
SECTION AT TOP OF SOLDIER PILE 1"=1'-0" N

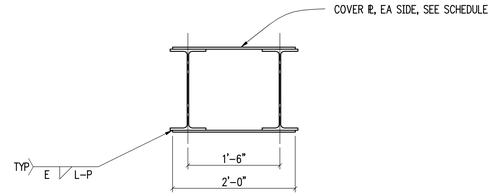


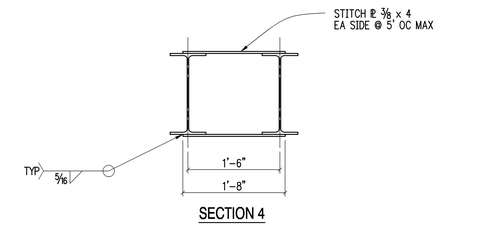
DETAIL 1"=1'-0" K

P









COVER ℄ SCHEDULE			
PILES		63W-64W	39W-56W
		23W-38W	72W-79W
		65W-71W	--
PLATE THICKNESS (IN)		1/2	
Y1 (FT)		6	8
Y2 (FT)		7	8
WELD (ALONG Y1)	E	5/16	
	L	6	10
	P	12	12
WELD (ALONG Y2)	E	5/16	
	L	CONTINUOUS	
	P		

NOTE:
USE STITCH PLATES WHERE NOTCHING APPLIES

WEST WALL TIEBACK DETAIL NO SCALE R

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(206) 622-5822 FAX (206) 292-2910

DONALD B. CARSON
STATE OF WASHINGTON
16673
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 1/20/07

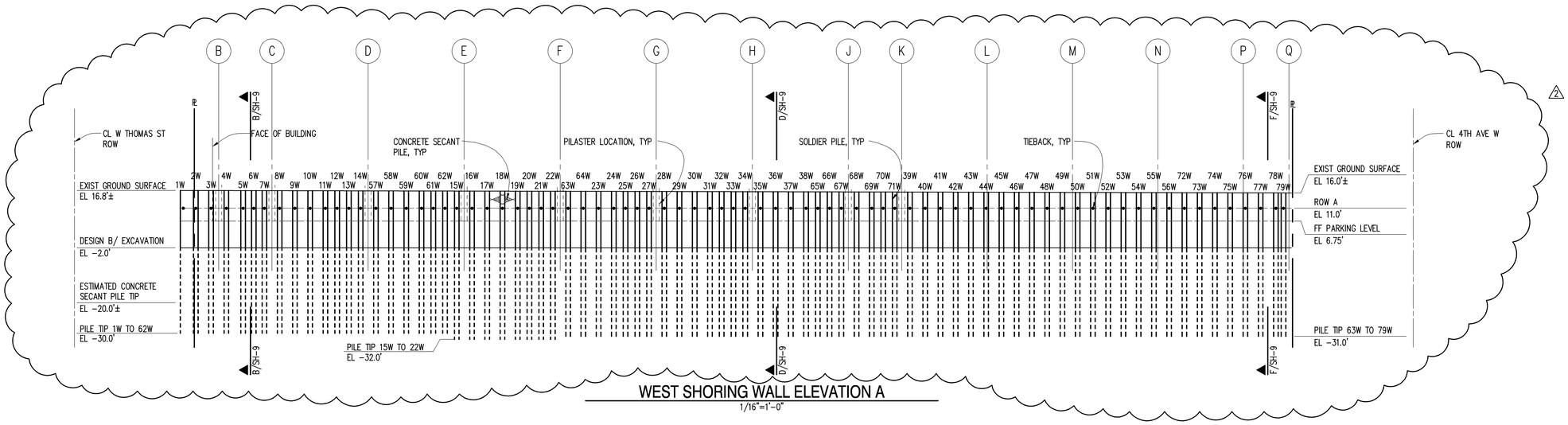
NO.	REVISIONS	DATE
2	REVISED WEST WALL SHORING	4/26/06

DATE : 6/09/06
SCALE : -
DRAWN BY : -
JOB NO. : -
DATE PLOTTED : -
DWG NAME : -

SHORING DETAILS

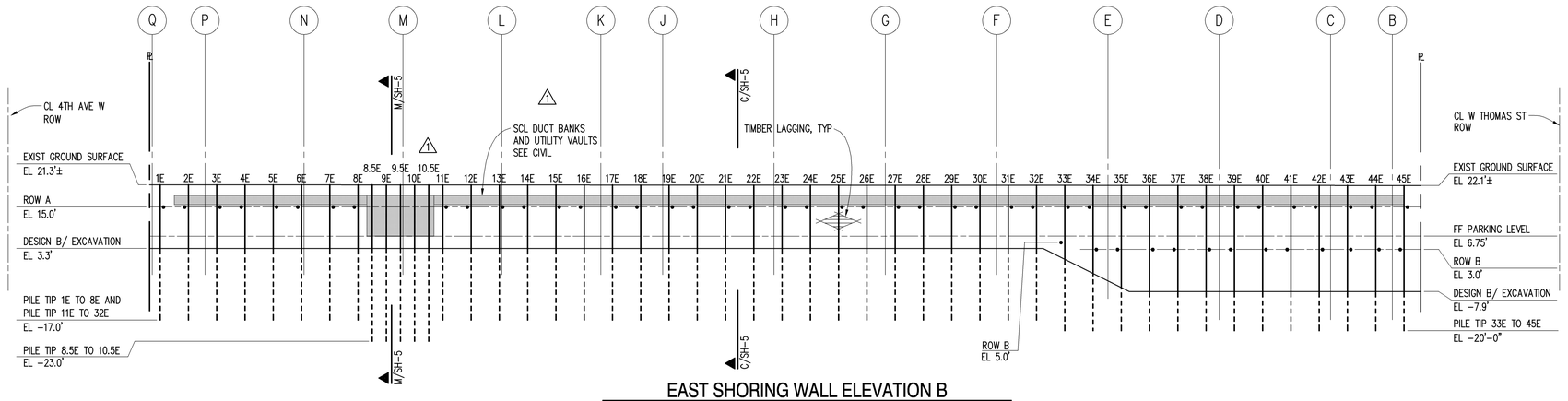
333 Elliott Avenue
Seattle, Washington

SH-6



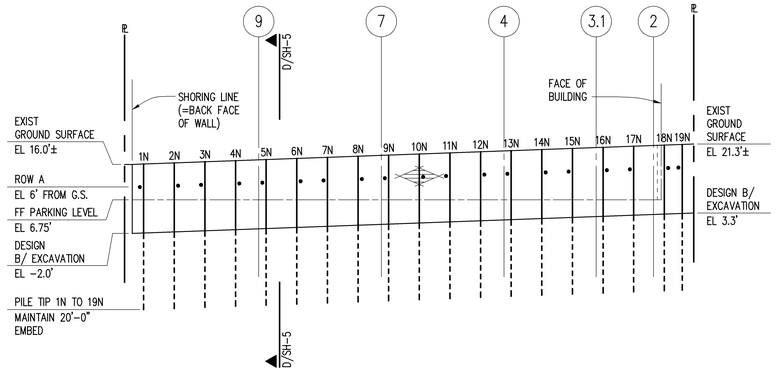
WEST SHORING WALL ELEVATION A

1/16"=1'−0"



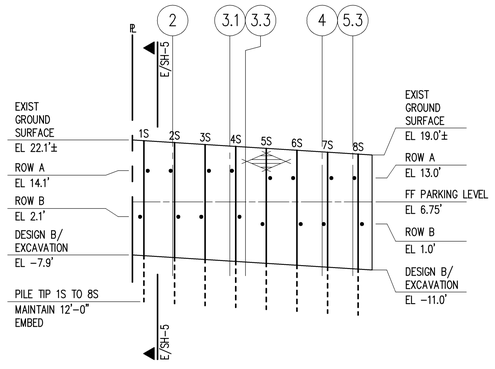
EAST SHORING WALL ELEVATION B

1/16"=1'−0"



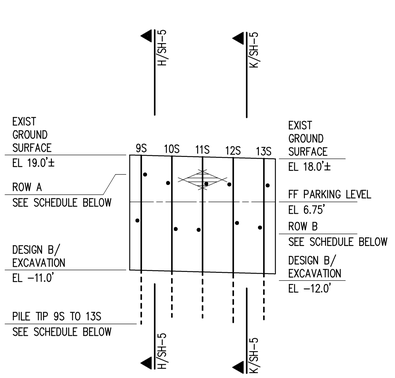
NORTH SHORING WALL ELEVATION C

1/16"=1'−0"



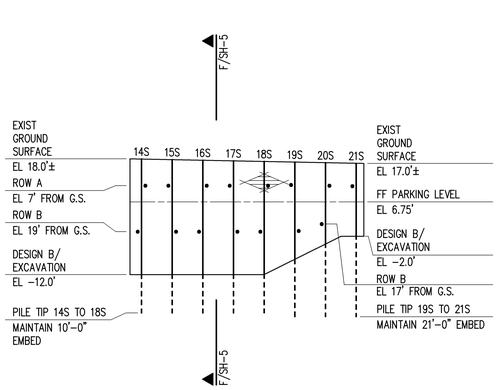
SOUTH SHORING WALL ELEVATION D

1/16"=1'−0"



SOUTH SHORING WALL ELEVATION E

1/16"=1'−0"



SOUTH SHORING WALL ELEVATION F

1/16"=1'−0"

PILE AND TIEBACK ELEVATION SCHEDULE					
PILE	9S	10S	11S	12S	13S
ROW A EL	14.0'	12.0'	11.5'	11.0'	
ROW B EL	2.0'	0.0'	−0.5'	1.0'	0.0'
PILE TIP EL	−25.0'	−23.0'	−23.5	−25.0'	−24.0'

NOTES:

1. DESIGN B/ EXCAVATION INDICATES BOTTOM OF EXCAVATION ASSUMED FOR DESIGN OF THE SHORING. ACTUAL BOTTOM OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR BASED ON FOOTING ELEVATIONS AND DIMENSIONS. ACTUAL BOTTOM OF EXCAVATION MAY BE HIGHER THAN DESIGN B/ EXCAVATION AT SOME LOCATIONS.
2. WEST WALL SECANT PILE TIP ELEVATIONS ARE ESTIMATED BASED ON AVAILABLE GEOTHNICAL INFORMATION. ACTUAL SECANT PILE TIP ELEVATION WILL BE DETERMINED BY THE GEOTHNICAL ENGINEER DURING CONSTRUCTION BASED ON THE OBSERVED SOIL CONDITIONS.

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NO.	REVISIONS	DATE
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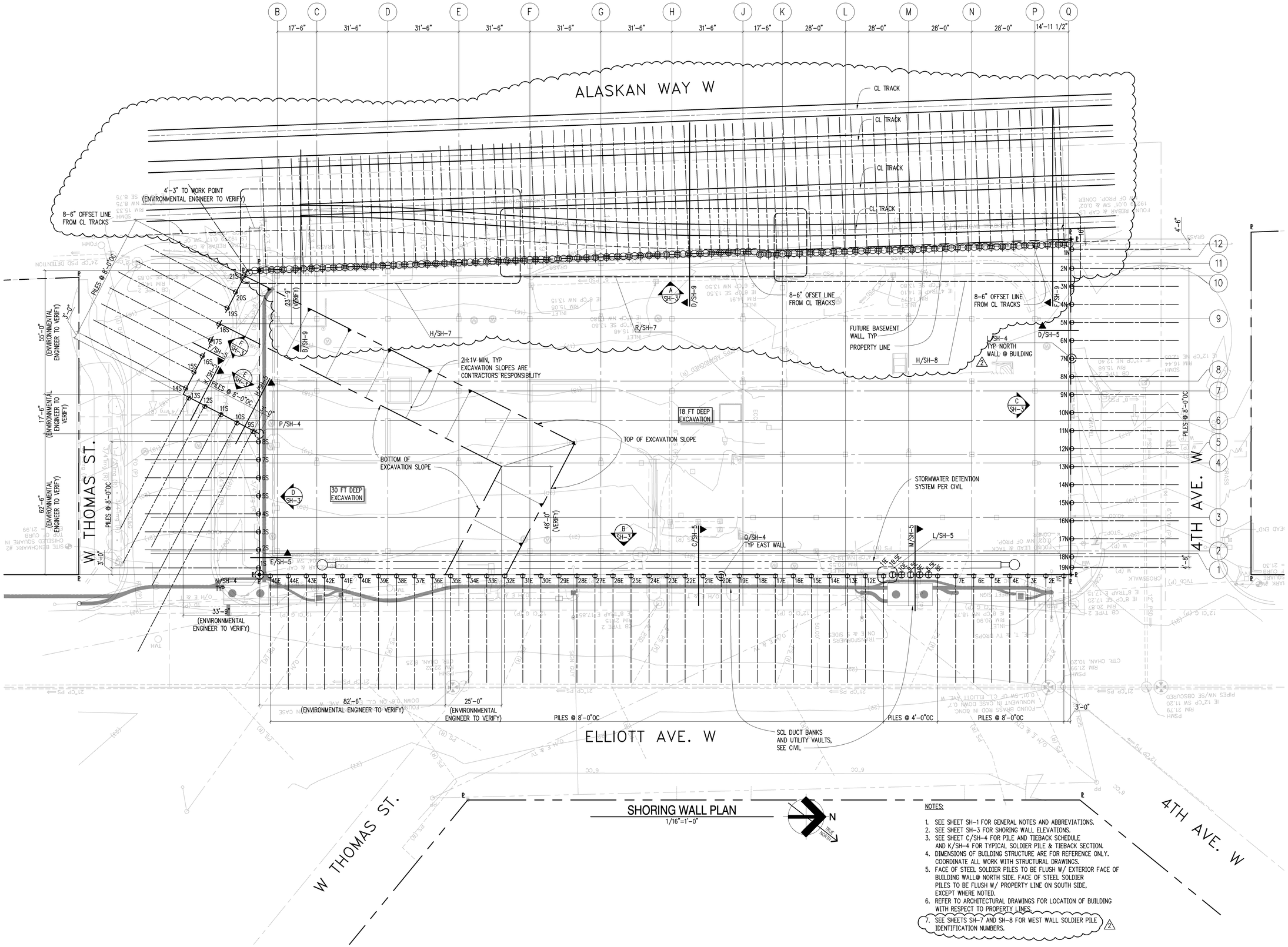
1	REVISED BID SET	1/23/06
	BID SET	12/21/05
	SHORING PERMIT RESUBMITTAL	10/21/05
	SHORING PERMIT SUBMITTAL	6/13/05

DATE : 3/20/06
SCALE : -
DRAWN BY : -
JOB NO. : -
DATE PLOTTED : -
DWG NAME : -

SHORING WALL ELEVATIONS

333 Elliott Avenue
Seattle, Washington

SH-3



SHORING WALL PLAN

1/16"=1'-0"

NOTES:

1. SEE SHEET SH-1 FOR GENERAL NOTES AND ABBREVIATIONS.
2. SEE SHEET SH-3 FOR SHORING WALL ELEVATIONS.
3. SEE SHEET C/SH-4 FOR PILE AND TIEBACK SCHEDULE AND K/SH-4 FOR TYPICAL SOLDIER PILE & TIEBACK SECTION.
4. DIMENSIONS OF BUILDING STRUCTURE ARE FOR REFERENCE ONLY. COORDINATE ALL WORK WITH STRUCTURAL DRAWINGS.
5. FACE OF STEEL SOLDIER PILES TO BE FLUSH W/ EXTERIOR FACE OF BUILDING WALL@ NORTH SIDE. FACE OF STEEL SOLDIER PILES TO BE FLUSH W/ PROPERTY LINE ON SOUTH SIDE, EXCEPT WHERE NOTED.
6. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF BUILDING WITH RESPECT TO PROPERTY LINES.
7. SEE SHEETS SH-7 AND SH-8 FOR WEST WALL SOLDIER PILE IDENTIFICATION NUMBERS. (2)

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DATE PLOTTED : .
DWG NAME : .

SHORING PLAN

333 Elliott Avenue
Seattle, Washington

SH-2

SHORING DRAWINGS

GENERAL SHORING NOTES

Code Requirements: All design and construction shall conform to the requirements of the International Building Code, 2003 Edition, as amended by the City of Seattle.

Reference Documents:

1. Geotechnical Report by Shannon & Wilson, Inc., dated June 10, 2005.
2. "Recommendations for Prestressed Rock and Soil Anchors" by the Post–Tensioning Institute, latest edition.
3. OSHA and WISHA Standards.
4. Geotechnical Memorandum by Shannon & Wilson, Inc., dated March 28, 2006. 2

Design Loads: The recommendations for lateral soil pressures provided in the Geotechnical Report were used for design.

Submittals: Shop drawings shall be submitted to the Architect prior to any fabrication or construction for all structural items including structural steel and miscellaneous metal. Mix designs shall be submitted to the Architect for all concretes and grouts. Shoring monitoring results shall be submitted to the Architect, Engineer and Geotechnical Engineer on at least a weekly basis.

Inspection: Inspection by a qualified Geotechnical Engineer or independent Testing Lab will be provided by Owner for pile installation, tieback installation and stressing and welding.

Special Conditions: Contractor shall verify all dimensions of existing structures in the field and shall notify the Architect of all field changes prior to fabrication and installation.

Crack Survey: Prior to construction, the Contractor shall complete a written and photographic log of all existing structures as described in the specification. A licensed surveyor shall document all existing substantial cracks in adjacent streets, sidewalks and existing structures.

Utility Location: The Contractor shall utilize the services of the "Utility Locator Service" (1–800–424–5555) to verify the extent and locations of site utilities. If the actual field verified location of utilities could result in a conflict with the shoring, the Engineer shall be notified immediately.

Prior to construction, Contractor shall verify that overhead obstructions, including electrical lines, do not interfere with use of the Contractor's drilling equipment.

Concrete: Concrete work shall conform to all requirements of Chapter 19 of the International Building Code. Concrete strengths shall be verified by 28–day standard cylinder tests, unless approved otherwise. Grout strengths shall be verified by 2–inch cube tests per ASTM C109. Concrete mixes shall be as follows:

fc (psi)	Minimum Cement Per Cubic Yard	Use
3000	4 sacks	Pile structural concrete
–	1 1/2 sacks	Pile lean concrete, secant piles

2

Admixtures that weaken the concrete mix shall not be allowed.

As an alternative to the above, the Contractor shall submit concrete mix designs to the Engineer for approval two weeks prior to placing any concrete. The alternate mix design will be reviewed for conformance to IBC Chapter 19.

Grout: Tieback grout shall be neat cement with a minimum of nine 94–pound sacks of cement per cubic yard of grout.

Prestressing Steel: Uncoated Seven Wire Stress Relieved Strand Grade 270 shall conform to ASTM A416. Steel Thread Bar Grade 150 shall conform to ASTM A 722.

Steel Reference Specifications: Design, fabrication and erection shall be in accordance with the following specifications:

Structural Steel	–	AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings, 9th Edition
Welding	–	AWS D1.1, –2000 AWS prequalified joint details
Welder Certification	–	Washington Association of Building Officials (WABO)

Steel Materials:

Reinforcing steel	–	ASTM A 615, Grade 60
Structural steel (except as noted below)	–	ASTM A 36 UNO
Structural steel WI2 & larger	–	ASTM A 992, Grade 50
Connection material, angles, plates, and misc. steel	–	ASTM A 36 UNO
Welding electrodes	–	E70XX UNO
Pipes	–	ASTM A 53, Grade B
Structural Tubes	–	ASTM A 500, Grade B
Bolts	–	ASTM A 307 UNO

Sawn Lumber: Sawn lumber shall conform to "Grading and Dressing Rules," West Coast Lumber Inspection Bureau (WCLIB), latest edition. Lumber shall be one of the two grades listed below:

Use	Grade	Fb(psi) (base values)
4x – Timber Lagging	Douglas Fir–Larch No. 2	900
	Hem–Fir No. 1	975

Timber lagging shall be pressure–treated with waterborne preservatives in accordance with AWPB LP–22 to a minimum retention of 0.4 lbs./cu. ft. Lagging shall be rough cut.

SHORING PROCEDURE

Verification: Dimensions and location of existing structures shall be verified prior to fabrication and installation of any structural member. Notify the Engineer about any discrepancies in dimensions.

Hole Drilling: Pile and anchor holes shall be drilled without loss of ground and without endangering previously installed piles and anchors. The geotechnical report recommends the use of casing to prevent collapse of the drilled hole in loose soils and soils that are below the groundwater level. See the geotechnical report for possible obstructions.

Excavation Below Tiebacks: Tieback installation and stressing shall be completed prior to excavating more than 1 foot below centerline of anchor level at the west wall and 2 feet below the centerline of anchor level at all other walls. 2

Shoring Removal:
Cut off and/or remove all components of shoring wall in City Right–of–Way 4 feet below grade following construction. Destress all tiebacks after concrete floor and walls above have attained design strength and after obtaining approval from the Engineer. See N/SH–5 and P/SH–5 for special tieback destressing procedure for the south wall.

Lagging: Timber lagging shall be installed at the north, south and east shoring walls. Voids between lagging and soil shall be backfilled immediately after lagging installation using a free draining backfill material selected by the Shoring Contractor. Drainage behind the wall must be maintained. It is the Contractor's responsibility to limit the amount of exposeds soil without lagging to avoid loss of soil. Excavation to install lagging below the ground shall be limited to 3 feet. 2

TIEBACK STRESSTING AND TESTING

Performance and proof tests shall be conducted on the tiebacks in accordance with Reference 2. Portions of these recommendations are outlined as follows:

Performance Tests

1. Prior to installing production anchors within a particular soil stratum, a performance test shall be accomplished for each anchor type and/or installation method that will be used. Approximately 3 percent of the production anchors, selected by the Geotechnical Engineer shall be performance tested by cyclical loading in 25 percent increments to 200 percent of design capacity. The 200 percent load shall be held for a minimum of 60 minutes. Successful 200 percent test anchors may be utilized as production tiebacks.
2. The performance test shall consist of recording the load and deflection measurements over a series of load cycles. The testing procedure and load increments recommended in Reference 2 shall be used for the performance test. The final maximum test load shall be maintained for at least 60 minutes.
3. The maximum stress in the prestressing steel shall not exceed 80 percent of the guaranteed ultimate tensile strength (GUTS) during performance testing. Piles and tiebacks may require extra reinforcement to permit stressing to 200 percent of the design load as required by the performance test.
4. A successful performance test shall meet the following criteria:
   A. Exhibit a near linear relationship between load and movement over the 200 percent test range.
   B. The creep rate does not exceed 0.080 inches/log cycle time during the final log cycle of the performance test.
   C. The total elastic movement exceeds 80 percent of the theoretical elastic elongation of the free stressing length.

   Test results from anchors not meeting these criteria shall be reviewed by the Geotechnical Engineer and the Engineer to determine if a replacement anchor is required.

Proof Test of Production Anchors

1. Each production anchor shall be proof–tested to 133 percent of the design load.
2. A proof test shall consist of incrementally loading an anchor to 133 of the design load. The testing procedure and load increments recommended in Reference 2 shall be used for the proof test.
3. A successful proof test shall meet the following criteria:
   A. Exhibit a near linear relationship between load and movement over the 133 percent test range.
   B. The creep rate does not exceed 0.04 inches for the 10 minute hold period of the final load increment.
   C. The total elastic movement exceeds 80 percent of the theoretical elastic elongation of the free stressing length.

   Test results from anchors not meeting these criteria shall be reviewed by the Geotechnical Engineer and the Engineer to determine if a replacement anchor is required.
4. Following successful proof loading, each anchor shall be locked–off at 80 percent of design loading required.
5. The maximum stress in prestressing steel shall not exceed 60 percent of the ultimate tensile strength at the design loads.

Jacking and Test Apparatus

1. The anchor load shall be measured with a pressure gage calibrated with the jack and accurate enough to read 100 psi changes in pressure. The pump shall be capable of applying each load increment for performance and proof tests in less than 60 seconds.
2. The movement of the anchor during testing shall be recorded to the nearest 0.001 inches.

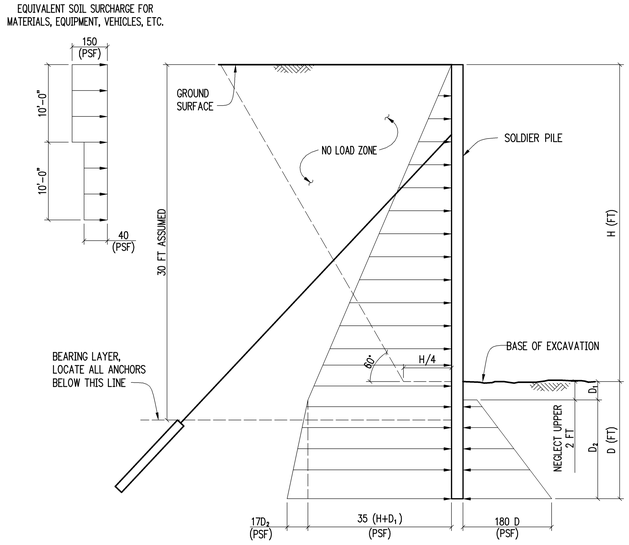
Pile Bracing for Tieback Testing

Steel bracing may be required during tieback stressing and testing to restrain the soldier piles from twisting. The locations and configuration of the bracing will be determined in the field at the time of construction. The cost to and install the bracing will be considered incidental.

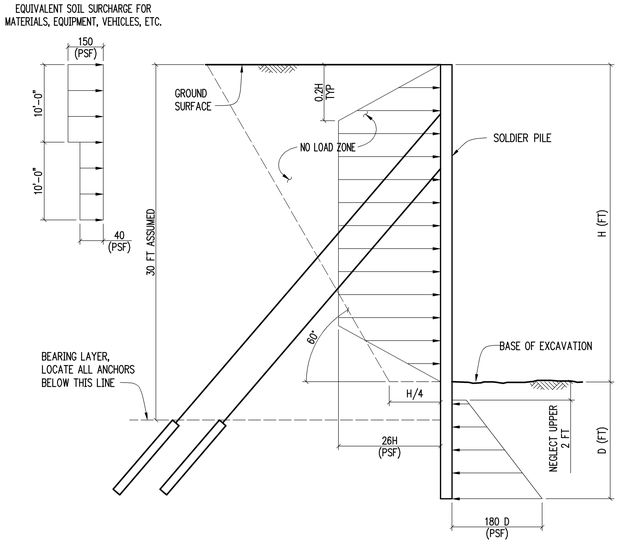
SHORING MONITORING

Monitoring of the shoring system, conducted by the Contractor, shall include measurements of vertical and horizontal movements of each soldier pile as directed by the Geotechnical Engineer. Monitoring points shall be located at the top of the soldier piles, strategically located to facilitate easy measurement by the surveyor. Ground surface monitoring shall be established on hardscapes surrounding the site as directed by the Geotechnical Engineer. Monitoring points shall be established on all adjacent buildings and shall be monitored daily during active excavation. Acceptable settlements will depend on the sensitivity of the surface or subsurface structure, therefore, settlement criteria will be established by the Geotechnical Engineer during active excavation. Additional monitoring points may be established at the direction of the Geotechnical Engineer.

The measuring system used for shoring monitoring shall have an accuracy of at least 0.01 foot. All reference points on the existing ground surface shall be installed and read prior to commencing the excavation. Subsequent points at depth along the shoring wall shall be installed and read as soon as possible during excavation. All reference points shall be read prior to and during critical stages of construction. The frequency of readings will depend on the results of previous readings and the rate of construction. As a minimum, readings shall be taken twice a week throughout construction until the shoring walls are completed. Readings shall be taken once a week by a licensed land surveyor. More frequent readings may be required at critical times during construction or if deemed appropriate by the Geotechnical Engineer. All readings shall be submitted to the Engineer and Geotechnical Engineer for review. If movement is observed to be 1 inch or greater, construction of the shoring system shall stop. The contractor, Engineer and Geotechnical Engineer shall evaluate the cause of the movement and implement mitigation measures, if deemed appropriate.



DESIGN LATERAL SOIL PRESSURES CANTILEVER OR SINGLE-SUPPORT TIEBACK



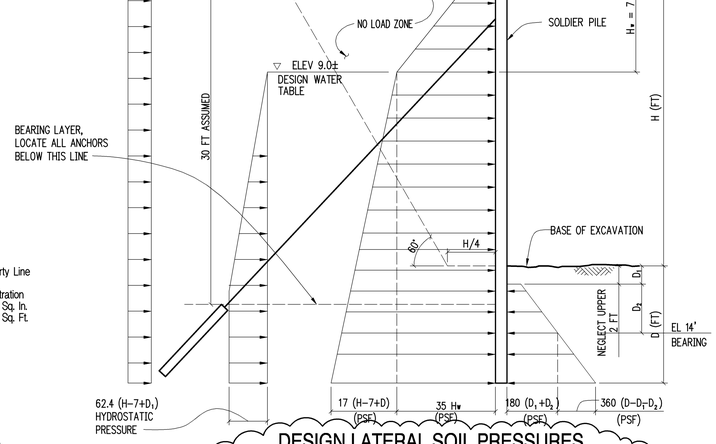
DESIGN LATERAL SOIL PRESSURES MULTIPLE TIEBACK ROWS

DESIGN PRESSURES

1. Active pressure assumed to act over pile spacing above base of excavation and one pile diameter below base of excavation, for the north, south and east walls.
2. Passive pressure assumed to act over twice the grouted soldier pile diameter, for the north, south and east walls. 2
3. All units in feet and pounds.
4. Allowable soil friction between concrete and soil for shaft = 2.0 KSF in dense native soil.
5. Allowable shaft end bearing = 15 KSF.
6. Anchor lengths assume 4.0 KLF bond strenth in anchor zone. The contractor shall select drilling methods and anchor size to achieve this capacity.
7. Depth of dewatering assumed to be at bottom of excavation except at west wall.
8. Design does not include hydrostatic pressures above assumed groundwater table.
9. Lateral surcharge pressure is based on an assumed traffic surface surcharge of 300 psf acting over a 10 foot wide influence area, per the Geotechnical Report.
10. Railroad surcharge = 1882 PSF over 8.5 foot width for piles at west wall.
11. Bearing layer assumed to be 30 feet below ground surface based on information in the geotechnical report.

SHORING DRAWING ABBREVIATIONS

AB	Anchor Bolt	EW	Each Way	OPNG	Opening
ADD'L	Additional	EXIST	Existing	OPP	Opposite
ADJ	Adjustable	EXP	Expansion	PEN	Penetration
AFF	Above Finish Floor	EXT	Exterior	PL	Plate, Property Line
ANCH	Anchor	FDN	Foundation	PNL	Panel
ARCH	Architectural	FF	Far Face	PP	Partial Penetration
B/	Bottom of	FIN	Finish	PSI	Pounds Per Sq. In.
BLDG	Building	FLG	Flange	PSF	Pounds Per Sq. Ft.
BM	Beam	FLR	Floor	PT	Point
BOT	Bottom	FS	Far Side	R	Radius
BRG	Bearing	FT	Feet	REF	Reference
BTWN	Between	FTG	Footing	REINF	Reinforcing
CAP	Capacity	GS	Ground Surface	REQ'D	Required
CC	Center to Center	HK	Hook	RTN	Return
CIP	Cast in Place	HORIZ	Horizontal	SCHED	Schedule
CL	Centerline	HP	High Point	SECT	Section
CLR	Clear	ID	Inside Diameter	SHT	Sheet
COL	Column	IF	Inside Face	SIM	Similar
CONC	Concrete	IN	Inch	SPEC	Specification
CONN	Connection	JT	Joint	SQ	Square
CONST	Construction	K	Kip (1000 lbs.)	STD	Standard
CONT	Continuous	KSF	Kips Per Sq. Ft.	STL	Steel
CONTR	Contractor	KSI	Kips Per Sq. In.	STRUCT	Structural
COORD	Coordinate	LB	Pound	SUPP	Support
CP	Complete Penetration	LF	Lineal Foot	SYM	Symmetrical
DBA	Deformed Bar Anchor	LL	Live Load	T/	Top of
DBL	Double	LLH	Long Leg Horizontal	T&B	Top and Bottom
DET	Detail	LLV	Long Leg Vertical	THK	Thick(ness)
DIA	Diameter	LONG	Longitudinal	THRU	Through
DKG	Decking	LP	Low Point	TRANS	Transverse
DL	Dead Load	MAX	Maximum	TS	Structural Tube
DN	Down	MIN	Minimum	TYP	Typical
DO	Ditto	MISC	Miscellaneous	UBC	Uniform Building Code
DWG	Drawing	MOM	Moment	UNO	Unless Noted Otherwise
DWL	Dowel	NF	Near Face	VERT	Vertical
EA	Each	NIC	Not in Contact	W/	With
EE	Each End	NOM	Nominal	WD	Wood
EF	Each Face	N/A	Not Applicable	WF	Wide Flange
EL	Elevation	NS	Near Side, Nonshrink	W/O	Without
ELECT	Electrical	NTS	Not to Scale	WP	Work Point
EMBED	Embedment	OC	On Center	WT	Structural Tee
EQ	Equal	OD	Outside Diameter		
		OF	Outside Face		



DESIGN LATERAL SOIL PRESSURES WEST SHORING WALL

NOTES:
1. Active pressure assumed to act over pile spacing above base of excavation and below base of excavation.
2. passive pressure assumed to act over pile spacing.. 2

DRAWING INDEX

2

CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282–8512

NO.	REVISIONS	DATE
2	REVISED WEST WALL SHORING	4/26/06
1	REVISED BID SET	1/23/06
	BID SET	12/21/05
	SHORING PERMIT RESUBMITTAL	10/21/05
	SHORING PERMIT SUBMITTAL	6/13/05

DATE : 3/20/06
SCALE : .
DRAWN BY : .
JOB NO. : .
DATE PLOTTED : .
DWG NAME : .

SHORING NOTES

333 Elliott Avenue
Seattle, Washington

SH-1

CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

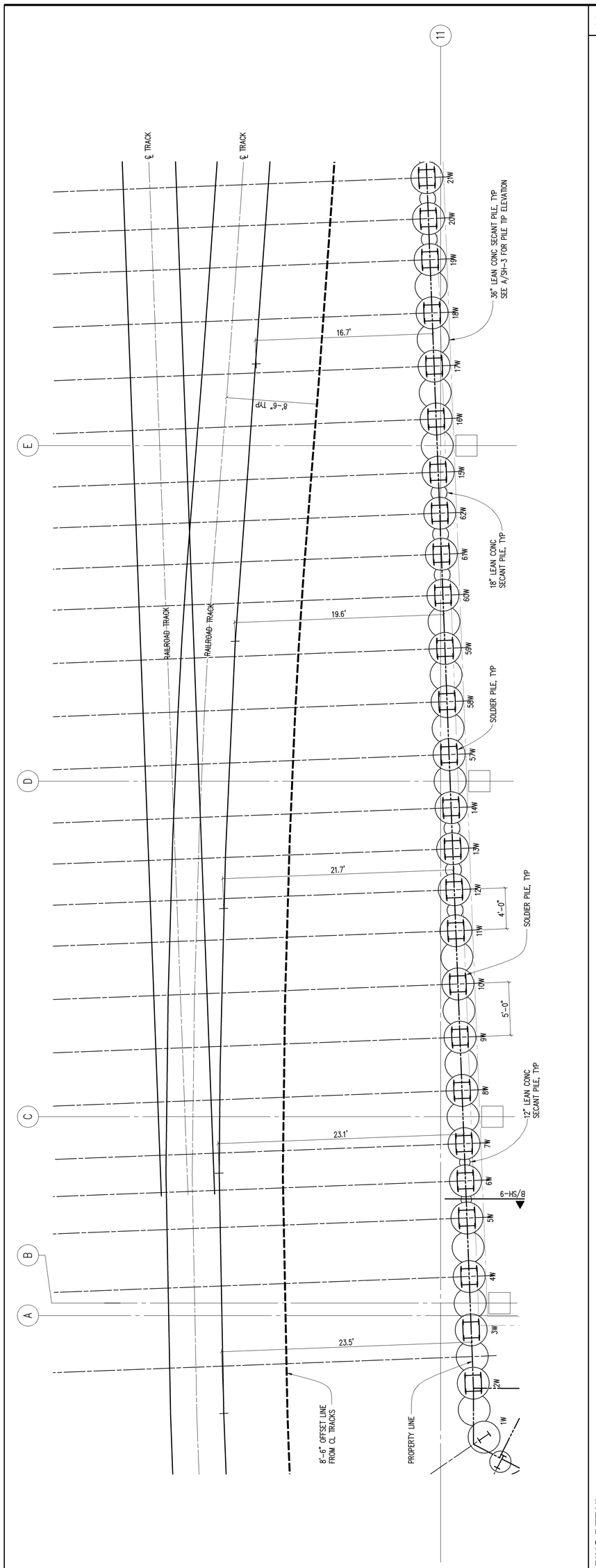
SH-7

SHORING DETAILS

333 Elliott Avenue
Seattle, Washington

NO.	REVISIONS	DATE
2	REVISED WEST WALL SHORING	4/26/06

DATE : 6/06/06
SCALE : .
DRAWN BY : .
JOB NO. : .
DATE PLOTTED : .
DWG NAME : .



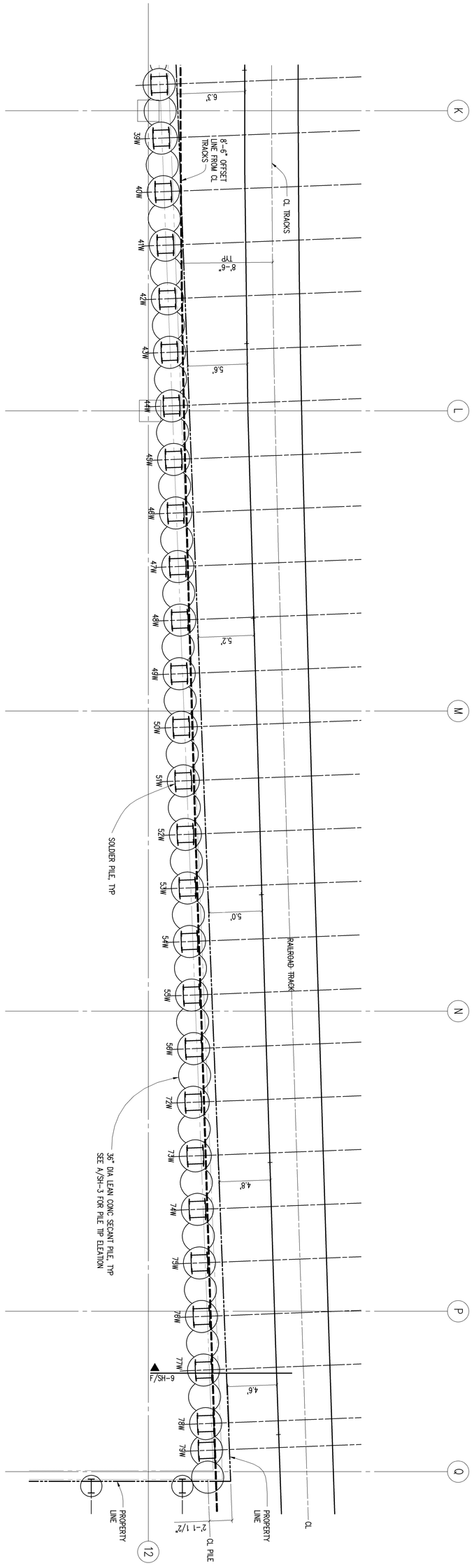
H
1/4" = 1'-0"

SHORING DETAIL

R
1/4" = 1'-0"

SHORING DETAIL

SHORING DETAIL



1/4" = 1'-0"

CURTIS BEATTIE & ASSOCIATES ARCHITECTS

3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

SH-8

SHORING DETAILS

333 Elliott Avenue Seattle, Washington

DATE :	6/08/06
SCALE :	.
DRAWN BY :	.
JOB NO. :	.
DATE PLOTTED :	.
DWG NAME :	.

NO.	REVISIONS	DATE
2	REVISED WEST WALL SHORING	4/26/06
.	.	.
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.	.	.

NO.	REVISIONS	DATE
.	.	.
.	.	.
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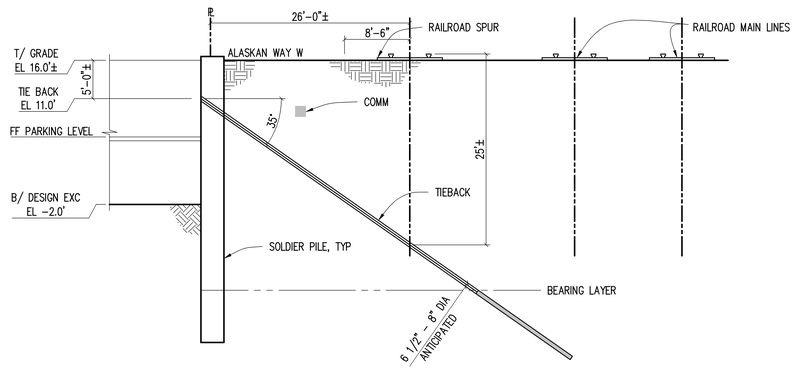
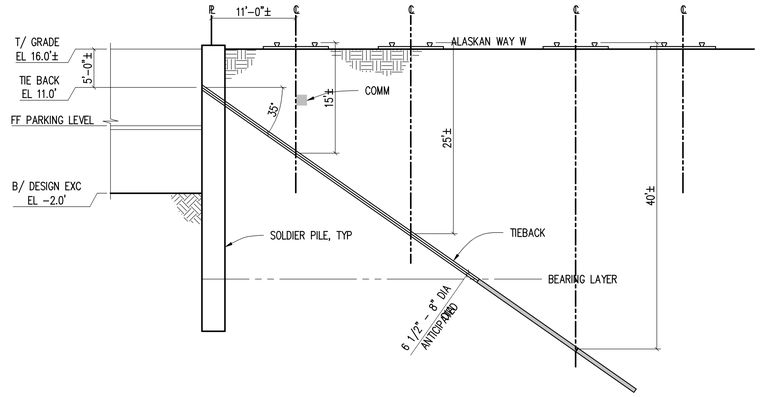
kpff Consulting Engineers
600 Fifth Avenue, Suite 300
Seattle, Washington 98104
(206) 622-5822 Fax (206) 622-8130



WEST SHORING WALL SECTION @ PILE 5W 1/8"=1'-0" B



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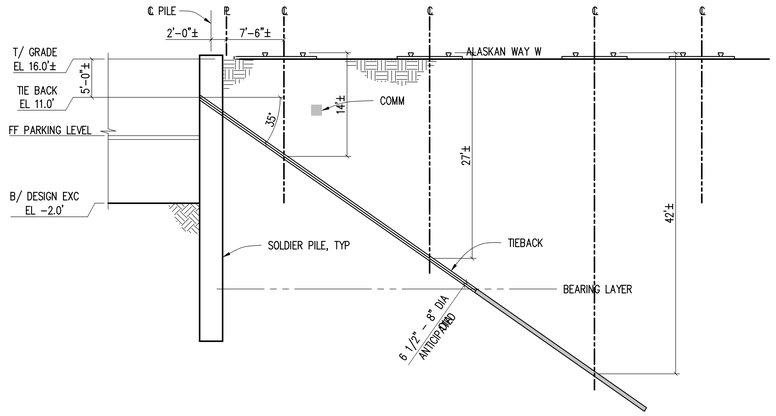


WEST SHORING WALL SECTION @ PILE 77W 1/8"=1'-0" F

H K L M N P Q R

CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

KPFF Consulting Engineers
600 STEWART STREET, SUITE 1600
SEATTLE, WASHINGTON 98101-1247
(206) 622-5822 FAX (206) 622-8130

DONALD B. CARSON
STATE OF WASHINGTON
16673
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 1/20/07

NO.	REVISIONS	DATE

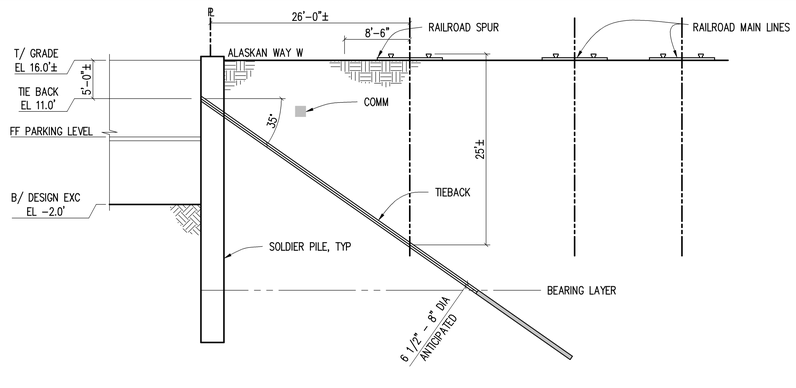
NO.	REVISIONS	DATE
2	REVISED WEST WALL SHORING	4/26/06

SHORING WALL SECTIONS

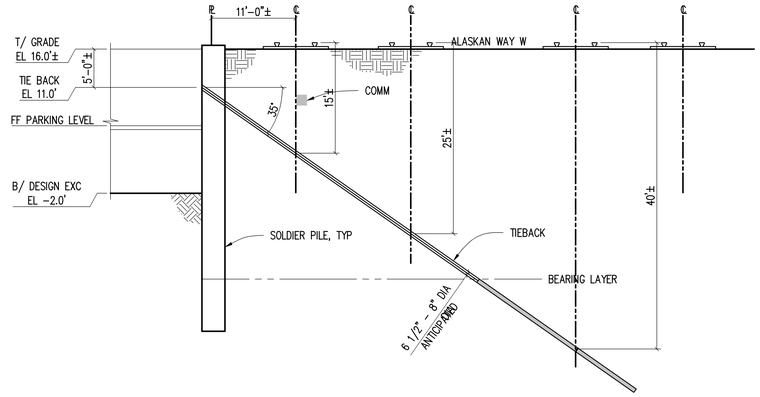
333 Elliott Avenue
Seattle, Washington

DATE : 3/20/06
SCALE : -
DRAWN BY : -
JOB NO. : -
DATE PLOTTED : -
DWG NAME : -

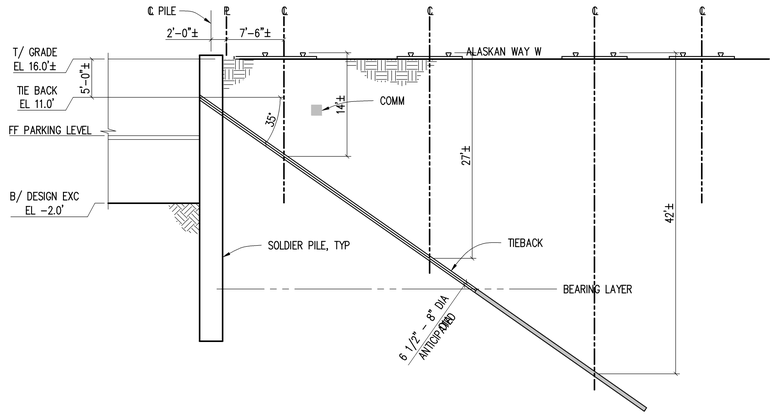
SH-9



WEST SHORING WALL SECTION @ PILE 5W 1/8"=1'-0" B



WEST SHORING WALL SECTION @ PILE 36W 1/8"=1'-0" D



WEST SHORING WALL SECTION @ PILE 77W 1/8"=1'-0" F

H K L M N P Q R

CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

KPFF Consulting Engineers
600 STEWART STREET, SUITE 1600
SEATTLE, WASHINGTON 98101-1247
(206) 622-5822 FAX (206) 622-8130

DONALD B. CARSON
STATE OF WASHINGTON
16673
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 1/20/07

NO.	REVISIONS	DATE

NO.	REVISIONS	DATE
2	REVISED WEST WALL SHORING	4/26/06

SHORING WALL SECTIONS

333 Elliott Avenue
Seattle, Washington

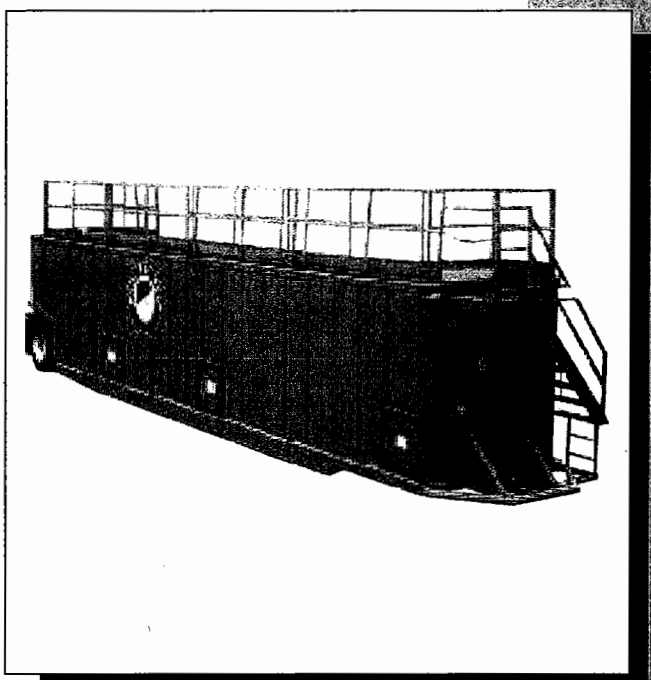
DATE : 3/20/06
SCALE : -
DRAWN BY : -
JOB NO. : -
DATE PLOTTED : -
DWG NAME : -

SH-9

APPENDIX B

DEWATERING TREATMENT SYSTEM COMPONENT SPECIFICATIONS AND CUT SHEETS

STEEL TANKS



18,100 Gallon Weir Tank

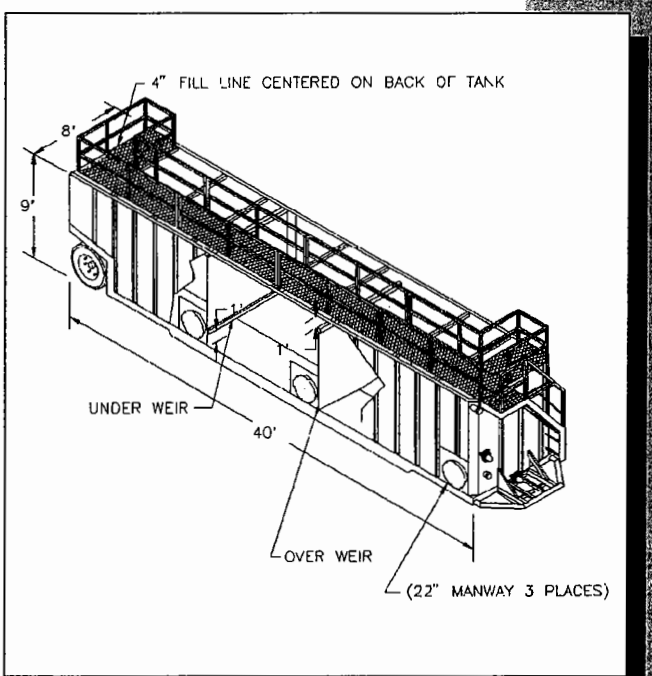
18,100 GALLON WORKSAFE™ WEIR TANK

FEATURES

- Over and under Weirs
- Safety stairway
- Complete guardrail system
- "V" shaped floor with 4" valves at each end for quick cleaning
- Easy to move and transport

TECHNICAL

WorkSafe™ Weir tanks come with a "V" shaped floor, allowing any residual fluid in the tank to easily flush out through the floor level 4" valves. Staircase, guard rails, and four 22" manway hatches are standard equipment. This allows easy monitoring of the fluids and easy cleaning when finished.



Tank Dimensions

MATERIAL SPECIFICATIONS

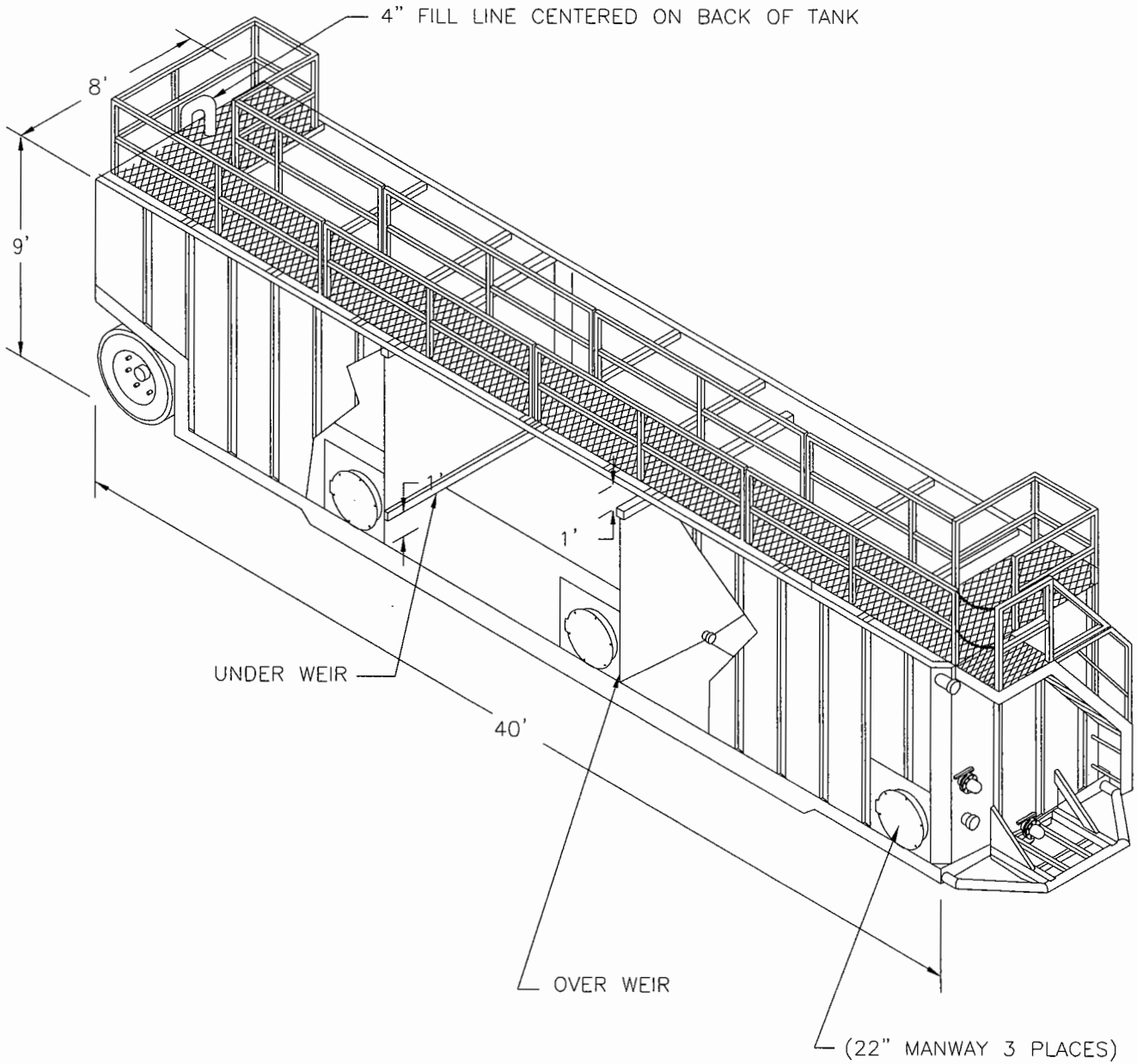
Steel construction with cross style internal bracing. Two 4" Butterfly valves located at either end of the "V" shaped floor. Permanently attached axles for maximum maneuverability. Staircase attached to front end and a guard rail system on the tank walkway. Three 22" manway hatches. Each tank comes equipped with over and under weirs for simple seperation of liquids. These tanks are open top with a walkway and complete guard rail running the length of the tank.

RAIN FOR RENT

RAIN FOR RENT
P.O. Box 2248 • Bakersfield CA 93303
800-742-7246 • 661-399-9124 • FAX 661-393-1542
Internet: www.rainforrent.com

REV.NO.	DESCRIPTION	PREVIOUS DWG	BY	DATE

ITEM	QTY.	REF.	DESCRIPTION



DATE 1-1-2002
SCALE FULL
DESIGNED
CHECKED
DRAWN DRAWN
SIZE D

WEIR TANK

18,100 GALLON WORKSAFE TANK

DETAIL

Rain For Rent
Engineering
3414 STATE ROAD PO BOX 2248 BAKERSFIELD CA 93303

1 OF 1

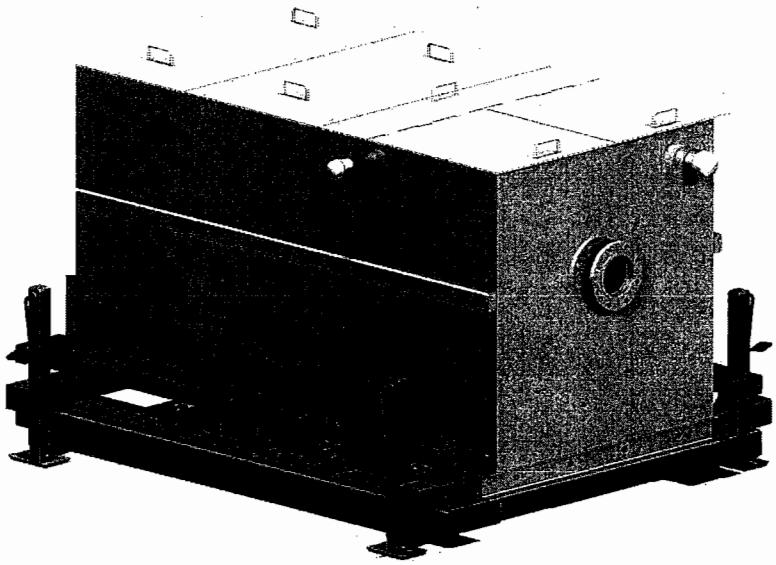
103422

1030004

OWS 200

Oil Water Separator

- Meets API 421 Specifications



FEATURES

- Removes free and dispersed non-emulsified oil
- Removes settleable solids
- Gravity flow oil skimmer
- Easy cleaning via removable vapor tight lids and 4 bottom drains
- No moving parts
- No power required
- Portable – skid mounted
- Leveling jackstands

TECHNICAL INFORMATION

- Parallel corrugated plate gravity displacement type separator.
- Designed in accordance with API 421 to remove free and dispersed non-emulsified oil and settleable solids
- 5 cubic feet sludge capacity

MATERIAL SPECIFICATIONS

- Chambers constructed of 304 stainless steel
- Coalescing packs are made of a special oil attracting material with ½" media standard
- OWS 200 requires 12 coalescing packs
  Packs are supplied separately
  Each pack is 4' long x 1' wide x 1' tall
- Inlet and outlet are 6" 150# flanges
- Oil drain is 2" male threaded pipe
- Sludge drains are 2" ball valves, female threaded outlet
- Overflow drain is 3" male threaded pipe
- Separator footprint:
  102" Long x 82" Wide x 64" High
- Dry shipping weight – 2,700 lbs. (Skid Mounted)

FLOW RATES ARE BASED UPON SPECIFIC GRAVITY, AS SHOWN BELOW				
SPECIFIC GRAVITY:	**0.7**	**0.85**	**0.9**	**0.95**
FLOW RATE (GPM):	**300**	**250**	**210**	**90**

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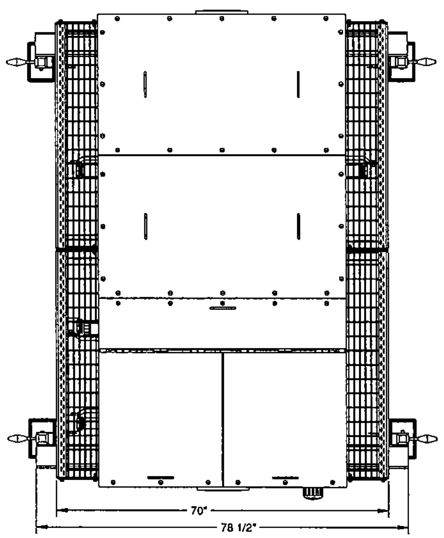
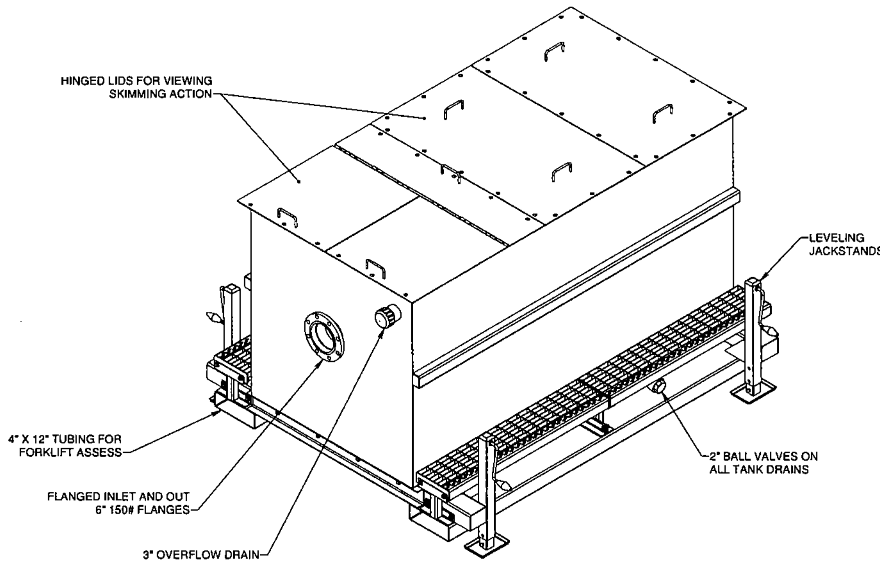
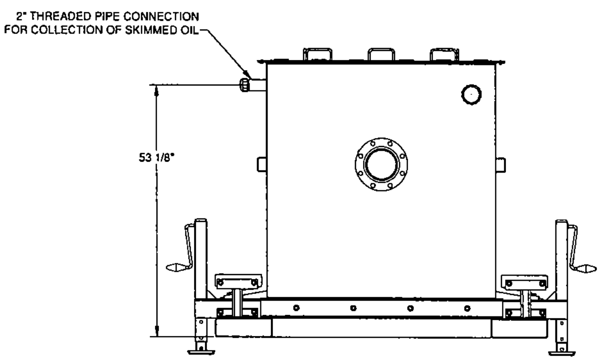
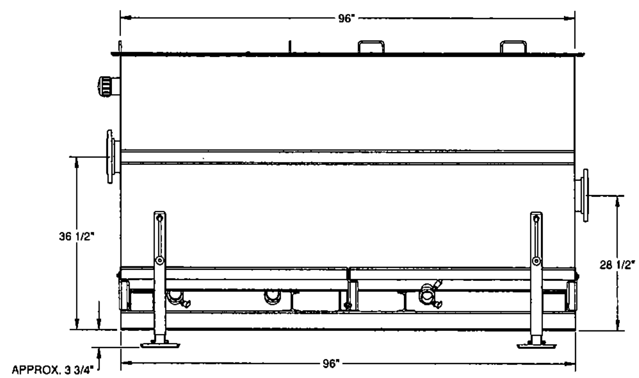
Internet: www.rainforrent.com





ISOMETRIC VIEW
NOT TO SCALE





REV.NO.	DESCRIPTION	PREV.DWG	BY	DATE
2	REDUCED HEIGHT OF OUTLET CHAMBER OVER WEIR BY 3/4"; ADDED SOLID PLATE TO ENTRY SCREEN	101315	KM	10/29/01
1	COMPLETE UNIT REVISED AS LISTED ON DWGS REFERENCED IN BILL OF MATERIALS	101315	KM	09/11/01

UNLESS OTHERWISE SPECIFIED

INTERPRET PER ASME Y14.100, ASME Y14.24 AND Y14.34M, Y14.35M
ALL DIMENSIONS ARE IN INCHES
ALL DIMENSIONS BEFORE PLATING
BREAK ALL SHARP EDGES
MACHINED FILLET RADII TO BE .020
SHEET SCALE IS AS LISTED IN TITLE BLOCK, UNLESS SPECIFIED OTHERWISE

FRACTIONAL: ±1/16
DECIMALS: .XXX = ±.010, .XX = ±.030, .X = ±.100
ANGLES: ±0° 30'

OWS200

Rain For Rent
Engineering
3404 State Road PO Box 2248 Bakersfield CA 93303

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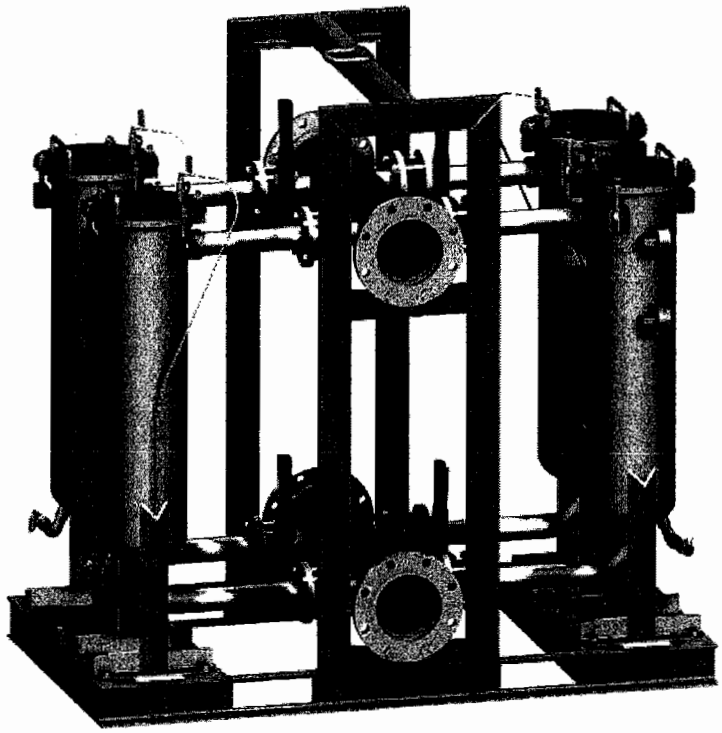
DATE: 9/11/01 | SCALE: 1:12
DESIGNED BY:
CHECKED BY:
DRAWN BY: K.MUSICK
JOB NUMBER: 1010619
DRAWING NUMBER:
SHEET: 1 of 1 | SHT.SIZE: D | REV NO: 2

SEDIMENT FILTRATION



BF400

■Up to 400 GPM

MATERIAL SPECIFICATIONS

- Chambers constructed out of 304 stainless steel
- Piping constructed out of 304 stainless steel
- Each bag filter chamber holds one (1) 7" x 30" double stitched filter bag
- Maximum operating pressure is 125psi
- Stainless steel inlet and outlet manifolds

FEATURES

- Manifold connections are 6" 150lb flanges
- Quadruple bag filter
- Bag filter for high solids holding capacity
- Replaceable bag filters from 100 to 1 micron nominal rating
- Isolation valving per chamber
- No moving parts
- Skid mounted

AVAILABLE ACCESSORIES

- Power Prime Pumps
- Spill Guard Containment berms
- Stainless Steel 304 and Carbon Steel storage tanks in Bi Level, Mixer, Weir and Manifold configurations
- Polyethylene storage tanks
- HDPE pipe and fittings
- Roll off boxes, dewatering bins and vacuum boxes
- Flow meters and pressure reducing/ sustaining valves
- Aluminum victaulic pipe and fittings
  Suction and discharge hose

TECHNICAL

- Bag filter chamber connect in parallel
- Units are fitted with bleed valves and pressure gauges
- System can stand alone for sediment removal or be used in combination with filter equipment
- Footprint: 62" long x 36" wide x 61" high
- Dry weight: 1,150lbs.

RAIN FOR RENT

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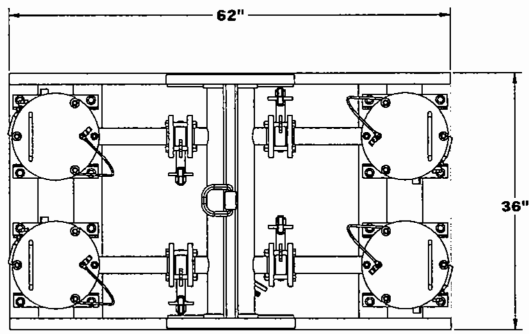
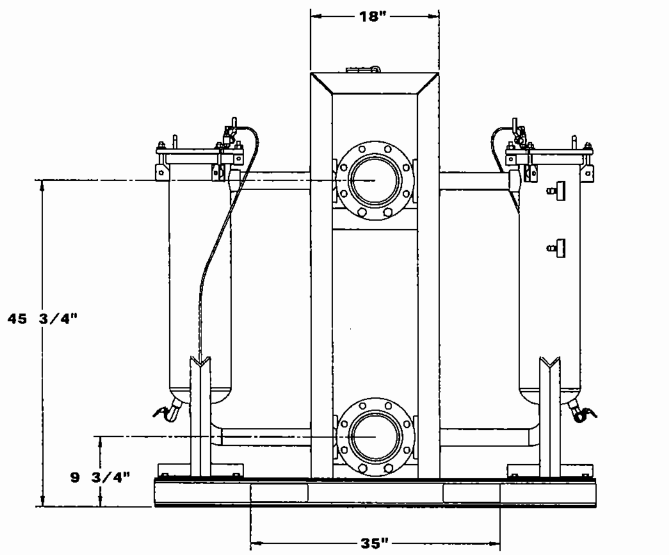
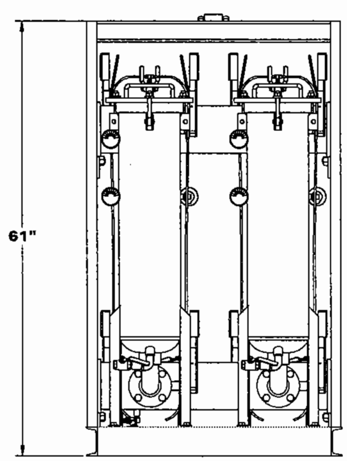
800 742-7246 • 661 399-9124 • FAX 661 393-1542
Internet: www.rainforrent.com



PLAN VIEW



SIDE VIEW



END VIEW

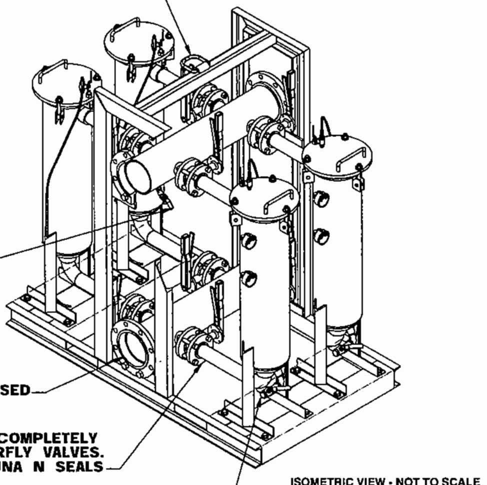
UNIT CAN BE MOVED USING LIFT BALE OR FORKLIFT POCKETS

1/4" SAMPLE PORTS FOR INLET AND OUTLET MANIFOLD

6" FLANGED INLET AND OUTLET - EITHER SIDE OF UNIT CAN BE USED

EACH CHAMBER CAN BE COMPLETELY ISOLATED USING 2" BUTTERFLY VALVES. VALVES EQUIPPED WITH BUNA N SEALS

ALL CHAMBERS EQUIPPED WITH DRAIN VALVES FOR EASY CLEANING



ISOMETRIC VIEW - NOT TO SCALE (CUT TO SHOW SAMPLE PORT)

REV.NO.	DESCRIPTION	PREV.DWG	BY	DATE

UNLESS OTHERWISE SPECIFIED

INTERPRET PER MIL 100
ALL DIMENSIONS ARE IN INCHES
ALL DIMENSIONS BEFORE PLATING
BREAK ALL SHARP EDGES
MACHINED FILLET RADII TO BE .020
SHEET SCALE IS AS LISTED IN TITLE BLOCK, UNLESS SPECIFIED OTHERWISE

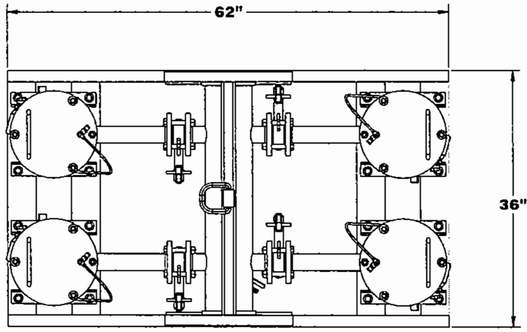
FRACTIONAL: ±1/8
DECIMALS: .XXX = ±.010 .XX = ±.030 .X = ±.100
ANGLES: ±0° 30'

BF400 SKID UNIT

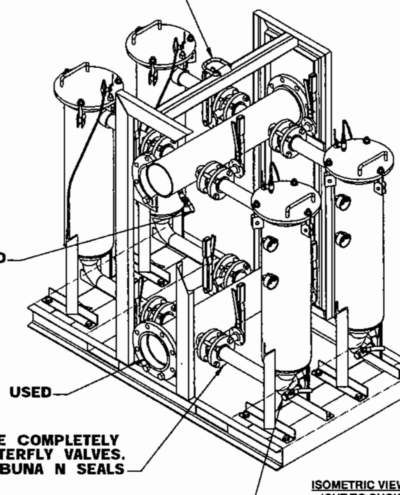
REFERENCE DIMENSIONS

Rain For Rent
Engineering
2404 State Road PO Box 2248 Bakersfield CA 93303

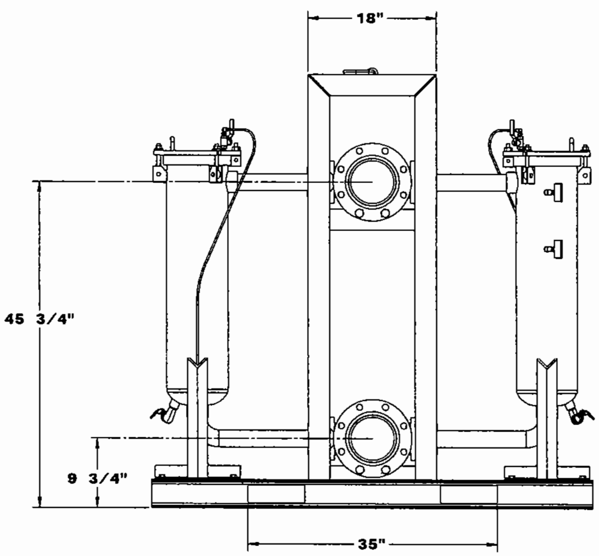
DATE	8/13/2001
SCALE	1:8
DRAWN BY	K.MUSICK
	1010716
	101480
SHEET	1 of 1
	D



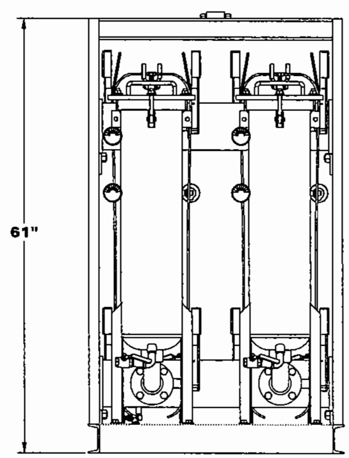
PLAN VIEW



ISOMETRIC VIEW - NOT TO SCALE
(CUT TO SHOW SAMPLE PORT)



SIDE VIEW



END VIEW

REV.NO.	DESCRIPTION	PREV.DWG	BY	DATE

UNLESS OTHERWISE SPECIFIED
INTERPRET PER MIL 100
ALL DIMENSIONS ARE IN INCHES
ALL DIMENSIONS BEFORE PLATING
BREAK ALL SHARP EDGES
MACHINED FILLET RADII TO BE .020
SHEET SCALE IS AS LISTED IN TITLE BLOCK, UNLESS SPECIFIED OTHERWISE

FRACTIONAL: ±1/8
DECIMALS: .XXX = ±.010 .XX = ±.020 .X = ±.100
ANGLES: ±0° 30'

BF400 SKID UNIT

REFERENCE DIMENSIONS

Rain For Rent
Engineering
3404 State Road PO Box 2248 Bakersfield CA 93303

DATE: 8/13/2001 SCALE: 1:8
DRAWN BY: K.MUSICK
JOB NUMBER: 1010716
DRAWING NUMBER: 101480
SHEET: 1 - 1 SIZE: D

ACTIVATED CARBONS

Clean Environmental Concepts, Inc. offers a full range of high quality activated carbons. Virgin and reactivated carbons from various raw materials, including coal and coconut shell, are provided in granular, pelletized and powdered forms. Standard products as well as custom products are available to meet the requirements of your application. Packaged in super sacks, drums, bags, pails, cargo trailers, bulk containers, or your custom containers, most carbons are in stock for quick shipment.

LIQUID PHASE

Carbon Type	U.S. Mesh	Iodine Number	Density (g/cc)	Density (#/ft^3)	Moisture (%)	Hardness (#)	Ash (%)	Molasses Number
CGV	**	800-1,000	0.48	30	5	96	12	200
CGV-AW	**	900-1,000	0.47	29	5	96	8	
CGR	**	800-1,000	0.48	30	5	90	12	
NGV	**	1,000-1,100	0.52	33	5	98	4	
NGV-WW	**	1,000-1,100	0.52	33	5	98	2	
NGV-AW	**	1,000-1,100	0.52	33	5	98	1	
NGR	**	900-1,000	0.48	30	5	97	5	
MGR	**	700-1,000	0.47	29	5	90	12	

C=Coal, N=Coconut, M=Mix, G=Granular, V=Virgin, R=Reactivated, AW=Acid Washed, WW=Water Washed

** Standard U.S. Mesh Sizes = 8x30, 8x40, 12x30, 12x40, 20x50

VAPOR PHASE

Carbon Type	U.S. Mesh	Activity (% CCl_4)	Density (g/cc)	Density (#/ft^3)	Moisture (%)	Hardness (#)	Ash (%)
CGV	**	55-65	0.45-0.50	28-31	5	90	12
CGR	**	50-65	0.45-0.50	28-31	5	90	12
CEV	mm	55-80	0.45-0.50	28-31	5	97	12
CER	mm	55-75	0.45-0.50	28-31	5	95	12
NGV	**	60	0.48	30	5	97	5
NGR	**	60	0.48	30	5	97	5
MGR	**	55	0.47	29	5	90	12
CEV-4K	4mm	70	0.60	38	15	8	8
CEV-OC	4mm	70	0.56	38	15	8	8

C=Coal, N=Coconut, M=Mix, E=Extruded (Pellet), G=Granular, V=Virgin, R=Reactivated, AW=Acid Washed

Pelletized (CEV, CER): mm = Diameter (0.9mm - 6.0 mm). Type CEV is also available with 8% ash content

** Standard U.S. Mesh Sizes = 4x6, 4x8, 4x10, 6x12

ACTIVATED CARBON ADSORPTION EFFECTIVENESS

Activated carbon removes organic chemicals from waste or process streams in the liquid or vapor phase. Generally, high molecular weight contaminants are more effectively removed by activated carbon than are low molecular weight contaminants. Given organic contaminant identities and concentrations, Clean Environmental Concepts, Inc. can predict the effectiveness and capacity of activated carbon in your application. Useful for project planning, costing and treatment system sizing, activated carbon usage estimates are arrived at through adsorption isotherm based computer modeling.

PRODUCTS
- Activated Carbon
- Specialty Medias
- Liquid Treatment Equipment
- Vapor Treatment Equipment

SERVICES
- Field Service
- Reactivation
- Disposal
- Process Design

RENTAL EQUIPMENT
- Rental Equipment

TECHNICAL
- Technical Information

FORMS
- Statement of Qualifications
- Credit Application
- WA Resale Certificate
- MSDS
- Spent Carbon Profile Form
- Spent Media Chain of Custody

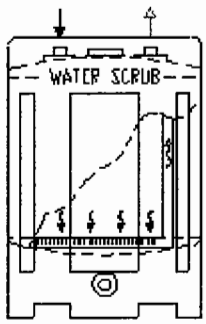
CONTACT CEC
- Contact Us

Liquid Phase Adsorbers

WATER SCRUB UNITS - Drum Type to 25 GPM

Models: WSU55, WSU85, WSU110

These economical adsorbers are your choice for low flow, low pressure liquid phase applications. Downflow operation and a slotted PVC underdrain maximize carbon bed use for removal of a wide variety of organic contaminants. High quality activated carbon provides for long adsorber life. Materials of construction are epoxy lined mild steel.



WATER SCRUB UNITS - Polyethylene Adsort

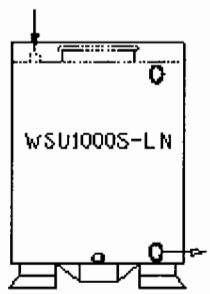
Model: WSU1000P

The WSU1000P is our most economical medium phase adsorber. Designed for flow rates to 60 GF constructed of corrosion resistant cross-linked pc adsorber provides high efficiency without stressi

WATER SCRUB UNITS - Epoxy Lined Steel to 100 GPM

Models: WSU1000S, WSU1000SLN, WSU2000S

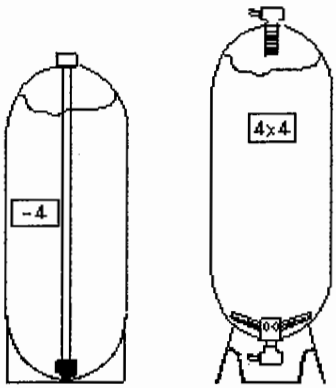
These low pressure adsorbers offer the economy and durability of epoxy lined steel construction. Available for purchase or rent, we stock these models for quick shipment.



HIGH PRESSURE ADSORBERS - FRP Construction to 300 GI

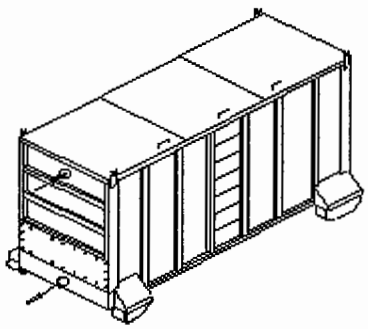
Models: FRP1447 through FRP63144

Liquid phase FRP adsorbers are designed to handle high pressure applications to 150 psi. Polyethylene lined fiberglass vessel const handle harsh waste or process stream conditions. A wide variety sizes and capacities are available to meet your unique requireme



HIGH PRESSURE ADSORBERS - Epoxy Lined Steel to 1000 GPM
Model: NCL Family, ACL Family

When your application requires high pressure capability and the durability of heavy duty lined steel adsorbers, our NCL and ACL units are your answer. The economical non-code NCL or ASME Code ACL adsorbers are available in a wide range of sizes including custom pipe, valve and control modules.



CLEAN WATER SYSTEM - Roll-off Boxes to 350 GPM
Model: CWS8000

The CWS8000 is a high carbon capacity non-pressure adsorber provide extended carbon bed life and the economy of our roll-of design. Epoxy lined mild steel construction stands up to extrem stream conditions.

Clean Environmental Concepts, Inc.
PO Box 898 · 15403 NE Caples Rd · Brush Prairie, WA 98606
(V) 360-699-7392 · (F) 360-695-0358

LIQUID PHASE CARBON ADSORBERS

LOW PRESSURE

Filter Type	Maximum Per Unit GPM	PSIG	°F	Weight (pounds) Carbon	Shipping	D(LxW)	H	Dimensions (inches) Inlet	Outlet
WSU55	10	10	175	200	250	24	36	2 FNPT	2 FNPT
WSU85	15	10	175	300	375	26	40	2 FNPT	2 FNPT
WSU110	20	10	150	400	500	32	46	2 FNPT	2 FNPT
WSU1000P	60	15	120	1,000	1,500	46	70	2 MQC	2 MQC
WSU1000S	60	12	150	1,000	1,800	48	64	2 FNPT	2 FNPT
WSU1000SLN	60	15	150	1,000	1,800	46x60	67	2 FNPT	2 FNPT
WSU2000S	100	15	150	1,800	2,800	48	94	2 FNPT	2 FNPT
CWS10000	350	N/A	150	10,000	15,000	180x90	100	4 FNPT	4 FNPT

HIGH PRESSURE

FRP1447-4	5	150	120	100	150	14	52	1 FNPT	1 FNPT
FRP1665-4	10	150	120	200	275	16	68	1 FNPT	1 FNPT
FRP2162-4x4	15	150	120	300	425	21	70	2 Socket	2 Socket
FRP2472-4x4	20	150	120	400	650	24	86	2 Socket	2 Socket
FRP3072-6x6	35	150	120	650	1,000	30	87	3 FNPT	3 FNPT
FRP3672-6x6	50	150	120	900	1,300	36	88	3 FNPT	3 FNPT
FRP4272-6x6	65	150	120	1,200	2,000	42	86	3 FNPT	3 FNPT
FRP4872-6x6	85	150	120	1,600	2,500	48	91	3 FNPT	3 FNPT
FRP6386-16x6	160	150	120	3,000	4,800	63	113	3 FNPT	3 FNPT
FRP63144-16x6	300	150	120	6,000	8,500	63	171	3 FNPT	3 FNPT
NCL-36	50	75	150	1,000	2,000	36	85	2 FNPT	2 FNPT
NCL-42	75	75	150	1,500	2,750	42	87	2 FNPT	2 FNPT
NCL-48	100	75	150	2,000	3,500	48	96	3 FNPT	3 FNPT
NCL-54	125	75	150	2,500	4,200	54	96	3 FNPT	3 FNPT
NCL-60	150	75	150	3,000	4,900	60	102	4 FNPT	4 FNPT
NCL-72	250	75	150	5,000	4,900	72	114	4 FNPT	4 FNPT
ACL-90	500	100	150	10,000	23,000	90	156	6 SOF	6 SOF
ACL-120	1,000	100	150	20,000	36,000	120	168	8 SOF	8 SOF

R = Radial P = Plastic S = Steel LN = Like New

Adsorption System Operation Planning

Planning for the operation of your activated carbon adsorption system begins before adsorber selection and installation. Properly planned, the costs of spent carbon handling and recycling are minimized. Issues include site location, system size, waste characterization, operator experience and adsorber type.

WARNINGS:

WET ACTIVATED CARBON - Due to moist carbon's preferential removal of oxygen from air, closed, partially closed or poorly ventilated containers or spaces containing wet activated carbon may present a low oxygen hazard to workers. If workers are to enter such a container or space, sampling, testing and operational procedures should be followed to ensure worker safety.

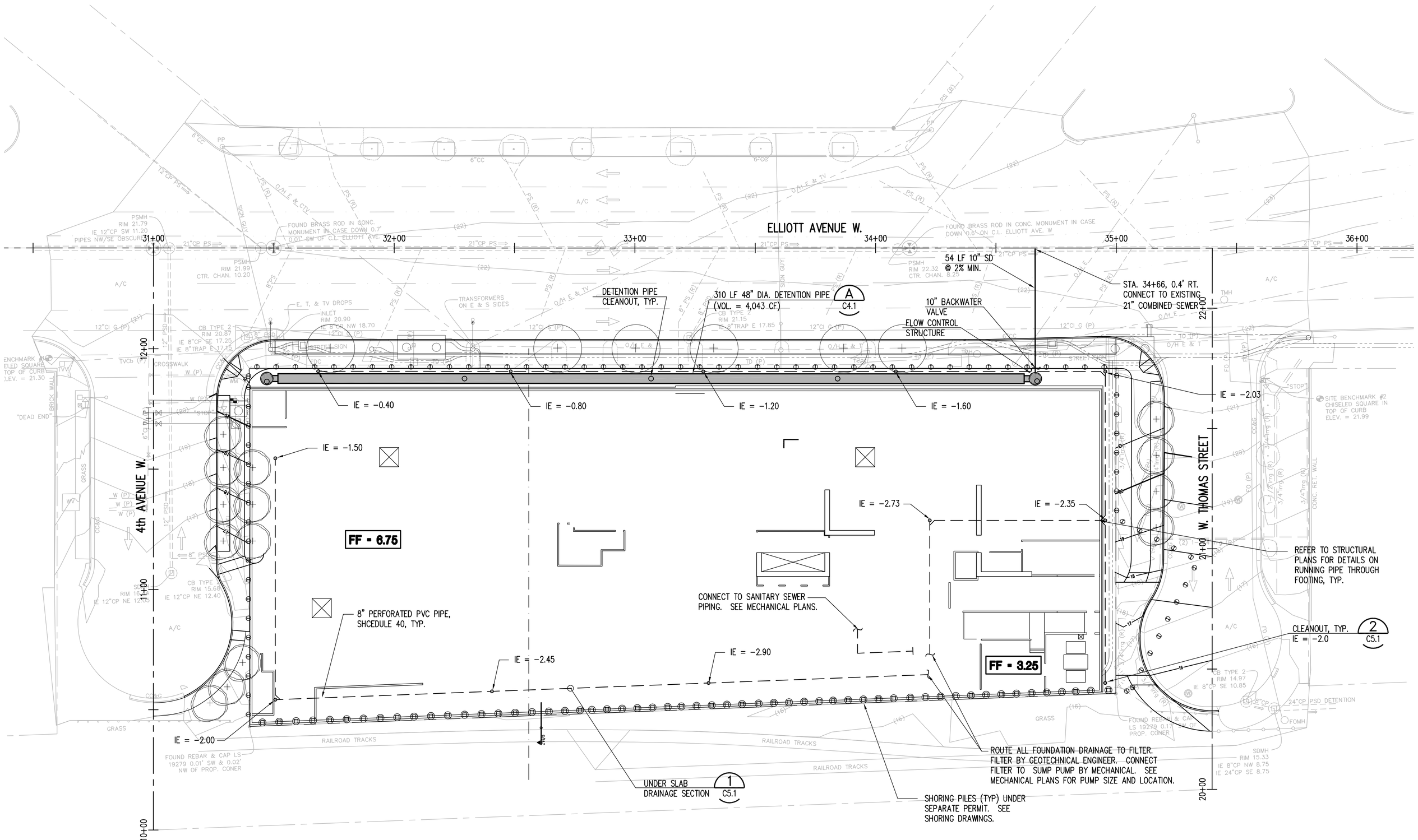
WARRANTY: The carbon adsorption units are manufactured in accordance with the specifications disclosed in the literature. No warranty, expressed or implied, is made relating to the suitability of the product for any particular application or purpose.

APPENDIX C

UNDER-SLAB DRAINS PLAN

DRAINAGE NOTES:

1. ROOF DRAINS ARE TO BE TIGHTLINED INTO DETENTION SYSTEM. SEE MECHANICAL DRAWINGS FOR ROOF DRAIN CONNECTIONS.
2. INVERT ELEVATIONS ON FOUNDATION DRAIN CLEANOUTS SHALL BE A MINIMUM OF 18 FEET BELOW EXISTING GRADE ELEVATIONS.
3. SLOPE ON FOUNDATION DRAINAGE PIPE SHALL BE 0.5% MIN.
4. ALL CONNECTIONS TO CITY COMBINED SEWER MAIN SHALL BE BY THE CITY AT THE OWNER'S EXPENSE.
5. PLUMBING CONTRACTOR SHALL CONNECT ALL ROOF DRAINAGE FROM THE BUILDING TO THE DETENTION PIPE SEPARATELY FROM THE PLAZA DRAINS TO PREVENT ROOF DRAINAGE FROM DRAINING INTO PLAZA AREA.
6. WHERE MECHANICAL PIPING CONNECTS TO EITHER THE COMBINED SEWER OR DETENTION SYSTEM, AND HAS AN OPENING WITHIN THE BUILDING BELOW THE SECOND FLOOR ELEVATION, A BACKFLOW PREVENTER SHALL BE INSTALLED.
7. ELEVATION OF GARAGE RAMP SHALL BE A MINIMUM OF THREE INCHES ABOVE THE ELEVATION OF THE DRIVEWAY ENTRANCE ALONG 4th AVENUE W. TO PREVENT FLOODING OF GARAGE.



CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

NO.	REVISIONS	DATE

NO.	REVISIONS	DATE
2	BID SET	12/23/05
1	BUILDING PERMIT SUBMITTAL	11/22/05

DATE : 2 NOV 2005
SCALE : AS NOTED
DRAWN BY : ESB/TAL
JOB NO. : 104608
DATE PLOTTED : 04Jan06
DWG NAME : 333 S0.dwg

FOUNDATION AND STORM DRAINAGE PLAN

C2.1

GRAPHIC SCALE
20 0 10 20 40
1 inch = 20 ft.

MICHAEL A. ELDRIDGE
STATE OF WASHINGTON
24711
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 9/14/06

JOB #	JOB NAME	PLOTTED DATE & TIME	PLOTTED BY	"CRP" FILE
104608	333 ELLIOTT	Jan 09, 2006 - 1:38pm	ChrisP	Civil Std.ctb

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WATER SERVICE NOTES:

1. CONNECTIONS TO EXISTING WATER LINES TO BE PERFORMED BY THE CITY OF SEATTLE WATER DEPARTMENT. THE NEW SERVICE LINES SHALL BE EXTENDED TO THE PROPERTY BOUNDARY AND WILL ALSO INCLUDE METER INSTALLATION, EXCAVATION, BACKFILL, AND ASPHALT/CONCRETE PATCHING/REPLACEMENT BY CITY OF SEATTLE WATER DEPARTMENT.
2. APPLICATION FOR A NEW METERED WATER SERVICE AND ALL FEES PAID IS REQUIRED 60 TO 90 DAYS BEFORE SERVICE WILL BE AVAILABLE. OWNER WILL NEED WATER AVAILABILITY CERTIFICATE AND LEGAL DESCRIPTION OF PROPERTY AND THREE (3) COPIES OF STREET IMPROVEMENT PLANS WHEN MAKING APPLICATION. OWNER SHALL BE RESPONSIBLE FOR PAYING THE SEATTLE WATER DEPARTMENT FOR THEIR SERVICES.
3. FOR INFORMATION AND INSPECTION, PHONE WATER SERVICE AT (206) 684-5800.

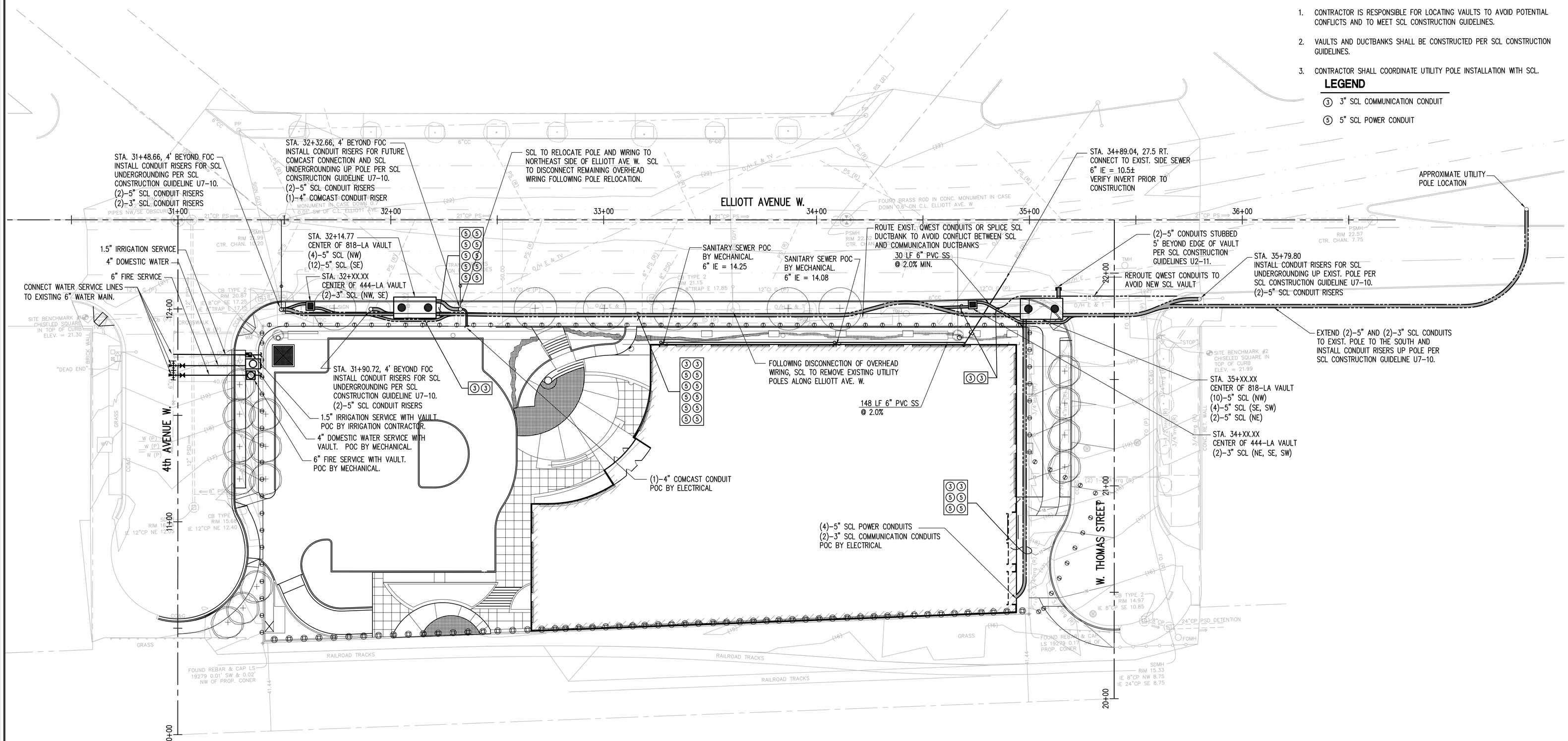
UTILITY NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING VAULTS TO AVOID POTENTIAL CONFLICTS AND TO MEET SCL CONSTRUCTION GUIDELINES.
2. VAULTS AND DUCTBANKS SHALL BE CONSTRUCTED PER SCL CONSTRUCTION GUIDELINES.
3. CONTRACTOR SHALL COORDINATE UTILITY POLE INSTALLATION WITH SCL.

LEGEND

③ 3" SCL COMMUNICATION CONDUIT

⑤ 5" SCL POWER CONDUIT



GRAPHIC SCALE
20 0 10 20 40
1 inch = 20 ft.

MARK A. VELBER STATE OF WASHINGTON 24711 REGISTERED PROFESSIONAL ENGINEER
EXPIRES 9/14/06

JOB #	JOB NAME	PLOTTED DATE & TIME	PLOTTED BY	"CRF" FILE
1046.08	333 ELLIOTT	Jan 09, 2006 - 1:39pm	ChrisP	Civil Std.ctb
X:\1046.01-1047.50\1046.08 (333 Elliott Ave W)\CAD\Design\On-Site\333 U1.dwg				

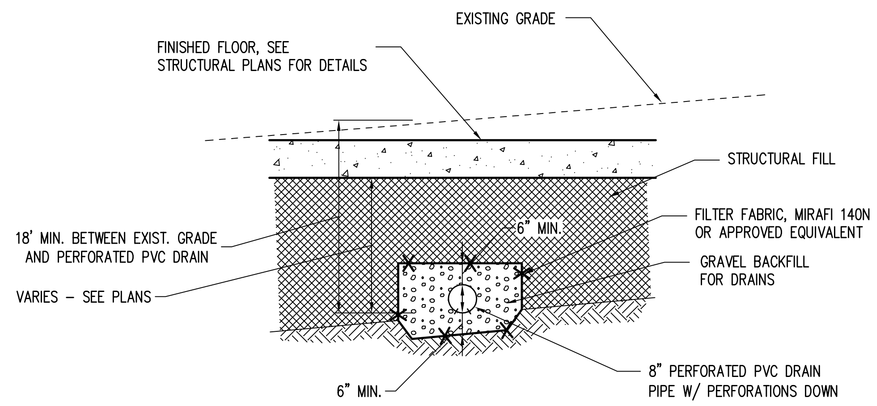
CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

NO.	REVISIONS	DATE
2	BID SET	12/21/05
1	BUILDING PERMIT SUBMITTAL	11/22/05

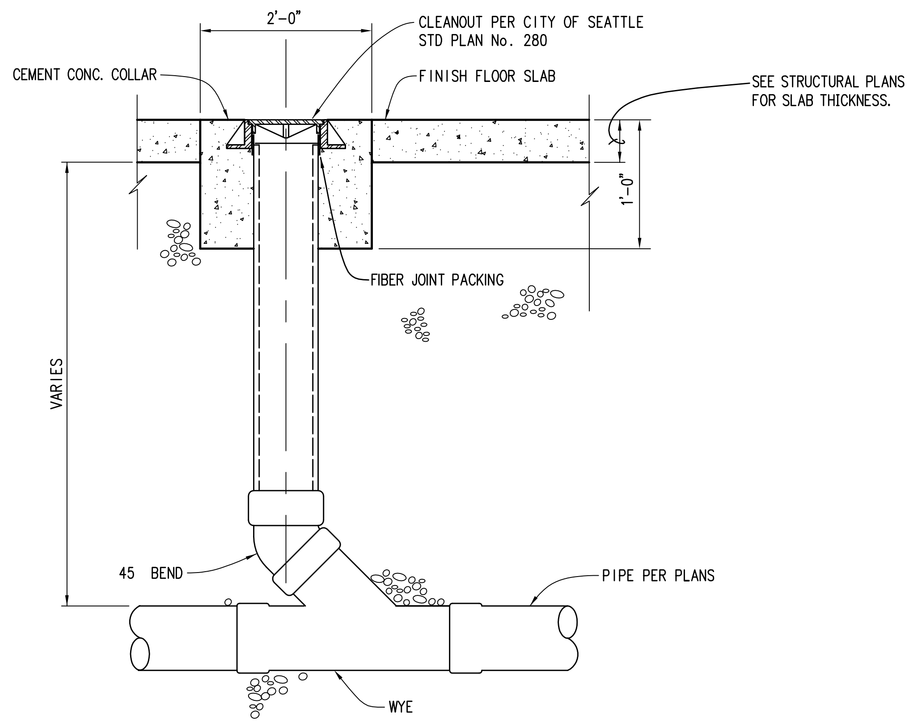
DATE : 2 NOV 2005
SCALE : AS NOTED
DRAWN BY : ESR/TAL
JOB NO. : 1046.08
DATE PLOTTED : 09 Jan 06
DWG NAME : 333 U1.dwg

UTILITY PLAN

C3.1



UNDER SLAB DRAINAGE SECTION 1
NTS



CLEANOUT DETAIL 2
NTS

CURTIS BEATTIE & ASSOCIATES ARCHITECTS
3131 ELLIOTT AVENUE BUILDING, SUITE 270
SEATTLE, WA. 98121 (206) 282-8512

NO.	REVISIONS	DATE

NO.	REVISIONS	DATE
2	BID SET	12/23/05
1	BUILDING PERMIT SUBMITTAL	11/22/05

DETAILS

C5.1

DATE : 2 NOV 2005
SCALE : AS NOTED
DRAWN BY : EGB/TAL
JOB NO. : 104608
DATE PLOTTED : 04-Jan-06
DWG NAME : S33 DT.dwg

MARK A. VIDLUND
STATE OF WASHINGTON
24711
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 9/14/06

JOB #	JOB NAME	PLOTTED DATE & TIME	PLOTTED BY	'CTB' FILE
104608	333 ELLIOTT	Jan 06, 2006 - 1:39pm	ChrisP	Civil Std.ctb

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